2287

FD-40E

SERVICE MANUAL

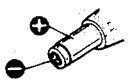
G-AEP Model

SPECIFICATIONS

TV standard	CCIR (B, G)
TV channel coverage	
	VHF channels 2–12
	UHF channels 21–68
Antenna	VHF/UHF telescopic antenna
Picture tube	10-cm (4-inch) picture measured diagonally
Speaker	Approx. 5 cm (2 inches) dia.
Input	A/V IN jack (AV jack)
	Video input: 1 V p-p, 75 ohms unbalanced, sync negative
	Audio input: −5 dBs (436 mVrms), 30 kilohms
Output	EARPHONE: stereo minijack
	impedance 8–300 ohms
Battery life	Watching TV at a normal sound level and normal temperatures, you can expect Sony Eveready AM2 alkaline batteries to last for approx. 4 hours.

Power requirements	6 V dc:
	Batteries
	four IEC designation LR14 alkaline batteries (size C)
	BP-16H rechargeable battery pack (optional)
	DC IN 6 V jack accepts:
	AC-40E AC power adaptor
	for use on 220 V ac, 50 Hz
	DCC-40A car battery cord (optional)
	for use on 12 V car battery
Dimensions	Approx. 127.5×215.5×65.5 mm (w/h/d) ($5^1/_8 \times 8^1/_2 \times 2^5/_8$ inches)
	incl. projecting parts and controls
Weight	Approx. 1.2 kg (2 lb 11 oz) incl. batteries

Note: Use only an ac power adaptor or car battery cord manufactured by Sony. Polarity of the plug of other manufacturers may be different.



Polarity of Sony plug

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MICROFILM

FLAT BLACK AND WHITE TV

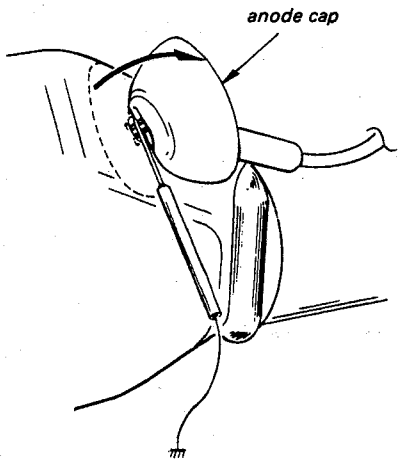
SONY®

B&W

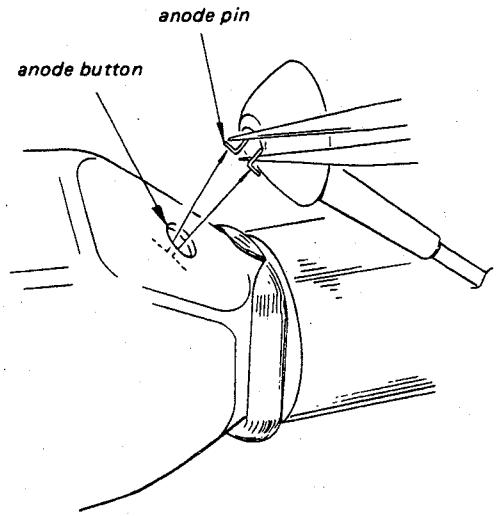
NOTE ON THE ANODE CAP REMOVAL

Even when the power switch is off, the voltage at the anode cap is still high.
Remove the anode cap as follows.

1. Discharge the anode pin to the ground.



2. Pinch and remove the anode pin with a pair of tweezers.
   At this time, be careful not to scratch the anode button.

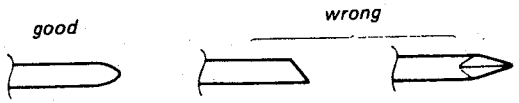


Caution on Reinstallation :
Confirm that the anode button is inserted into the anode cap securely.

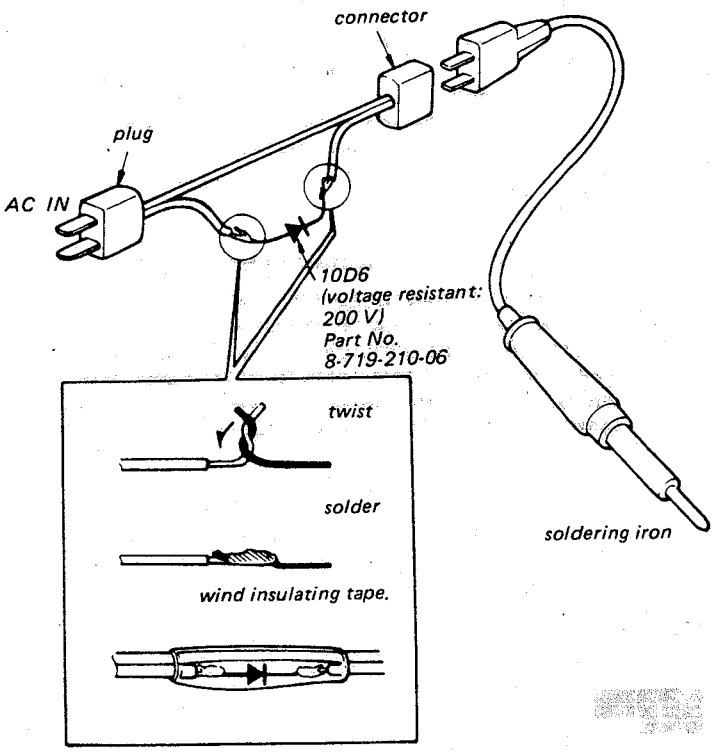
Flexible Circuit Board Repairing

1. Keep the temperature of the soldering iron at 270° ± 10°C during repairing.
   You can maintain the temperature of the soldering iron around 270°C by using the thermal controller as illustrated on the right.
2. Do not touch the soldering iron more than 4 seconds or 4 times on the same conductor of the circuit board.
3. Do not apply force on the conductor when soldering or unsoldering.

Tip of soldering iron



To make thermal controller of soldering iron



SERVICING NOTE

Replacing chip components

All chip components should be connected and disconnected, using a tapered soldering iron [temperature of the iron tip: less than 280°C (536°F)], a pair of tweezers and braided wire.

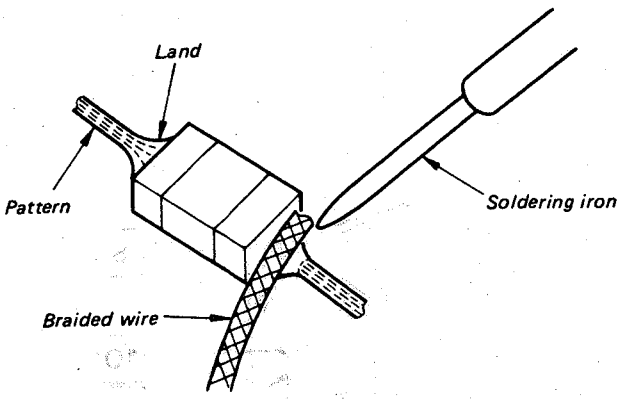
Precautions for replacement

1. **Do not disconnect the chip component forcefully. Otherwise, the pattern may peel off.**
2. **Never re-use a disconnected chip component. Dispose of all old chip components.**
3. **To protect the chip component, heating time for attaching the component should be within 3 seconds.**

○ Removing chip components

(1) Removing solder at electrode

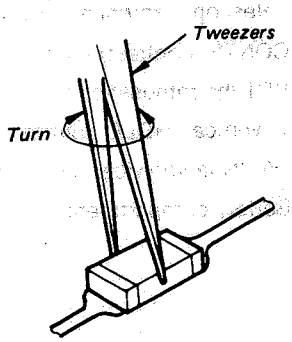
Remove the solder at the electrode, using a thin braided wire. Do not remove the solder of the part (chip component) attached adjacent to the electrode.



(2) Disconnecting chip components

Turn the tweezers with the soldering iron alternately applied to both electrodes, and the chip component will be disconnected. Take careful precautions while disconnecting, because if the chip component is forcefully removed the land may peel off.

Never re-use a disconnected chip component.



(3) Smoothing the soldered surface

After disconnecting the chip component, remove the solder by using a braided wire to smooth the land surface.

○ Connecting chip components

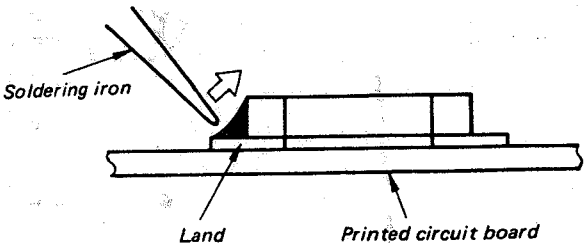
The value of chip components is not displayed on the main body. Take due precautions to avoid mixing new chip components with other ones.

(1) Applying solder to land on one side

Apply a thin layer of solder to the land on one side where the chip component is to be connected. Too much solder may cause bridging.

(2) Speedy soldering

Hold the chip component at the desired position, using tweezers, and apply the soldering iron in the arrow-marked direction. To protect the chip component, heating time should be within 3 seconds.

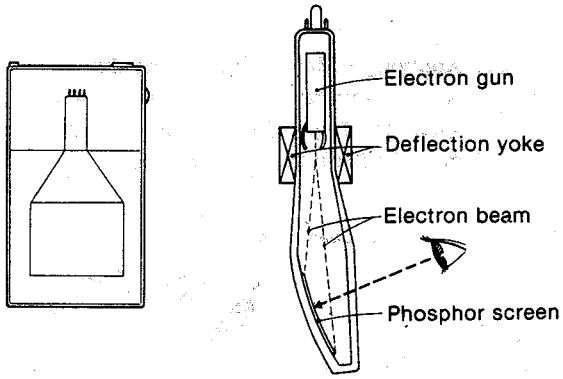


(3) Speedy soldering of electrode on the other side

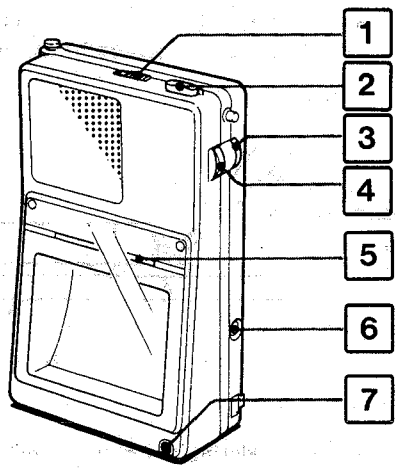
Solder the electrode on the other side in the same way as in (2) above.

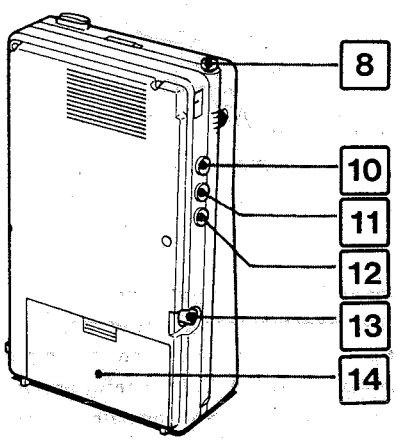
FEATURES

- Miniature black and white TV for portable or tabletop use.
- Recessed tilted screen for comfortable viewing.
- 4-way power source capability allows use in various situations.
- Combined audio/video input for monitoring other equipment.
- Built-in muting circuit eliminates inter-station noise.



PARTS IDENTIFICATION

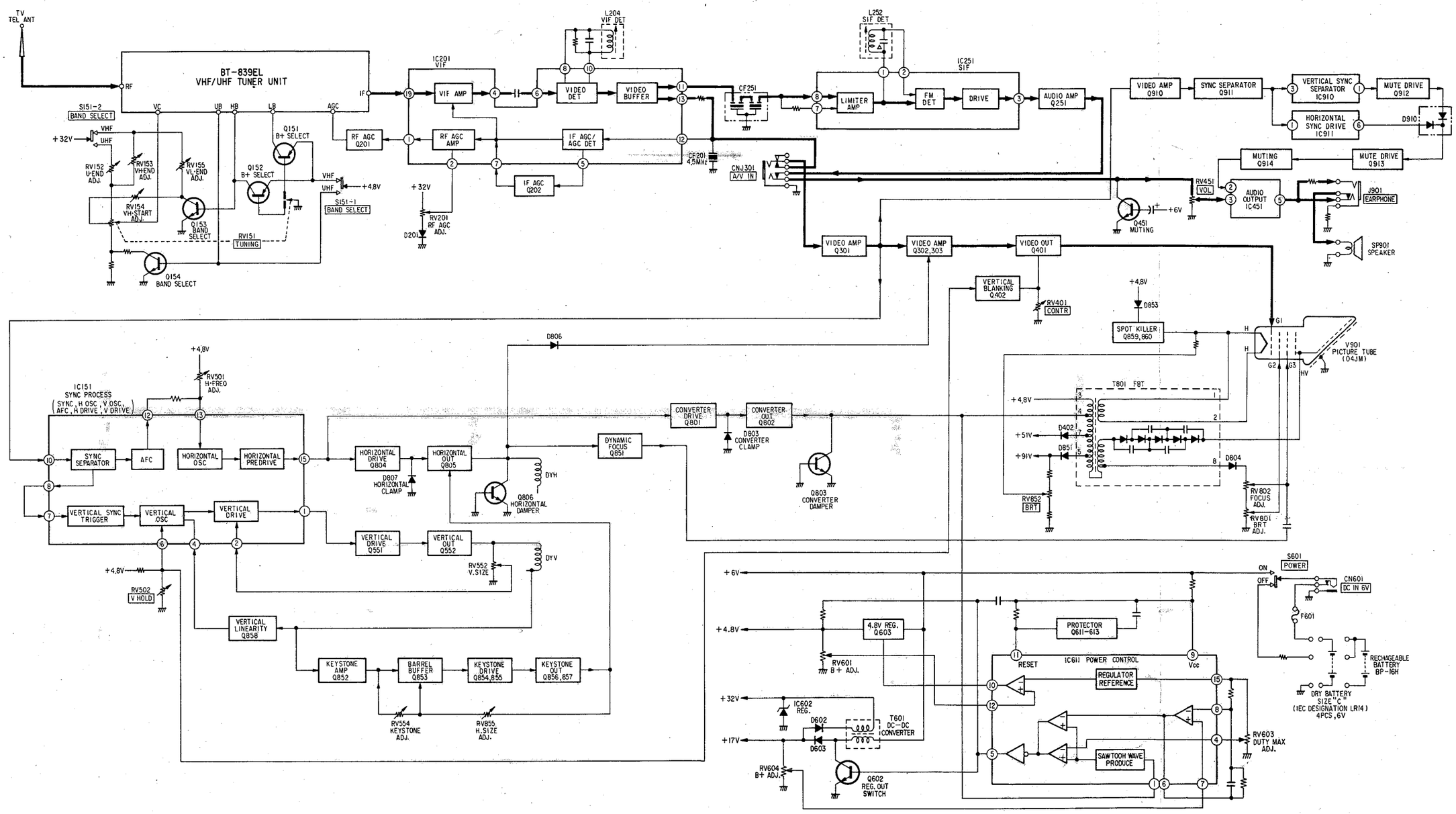


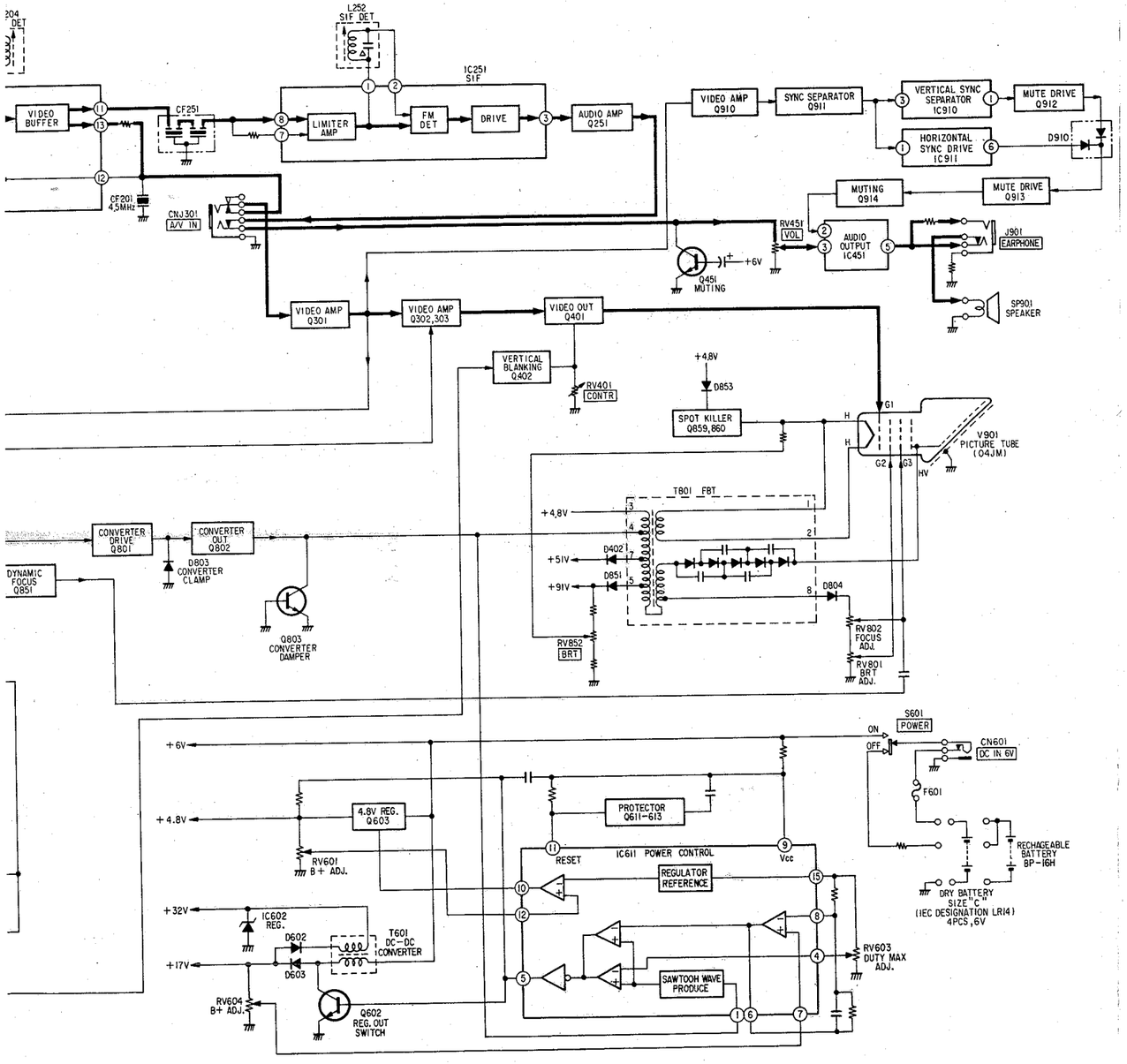


1. BAND SELECT switch
2. POWER switch
3. VOL (volume) control
4. TUNING control
5. Dial scale
6. DC IN 6V (external power input) jack
7. EARPHONE jack

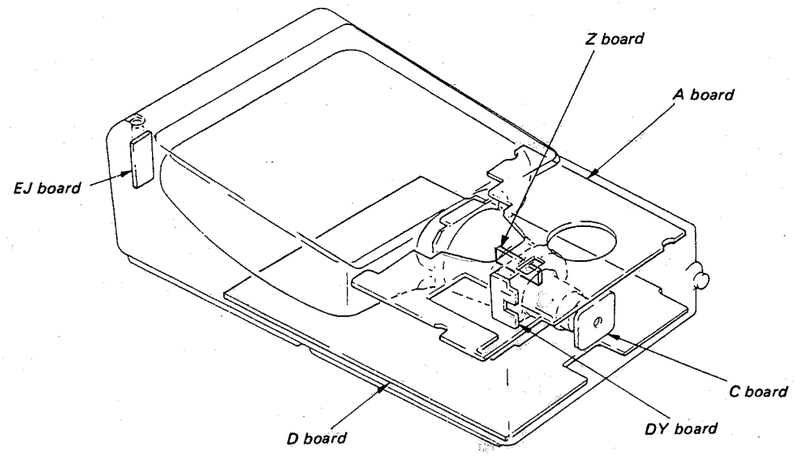
8. Telescopic antenna
10. CONTR (contrast) control
11. BRT (brightness) control
12. V (vertical) HOLD control
13. A/V IN (audio/video input) jack
14. Battery compartment

SECTION 1
BLOCK DIAGRAM



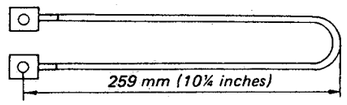


SECTION 2
CIRCUIT BOARDS LOCATION

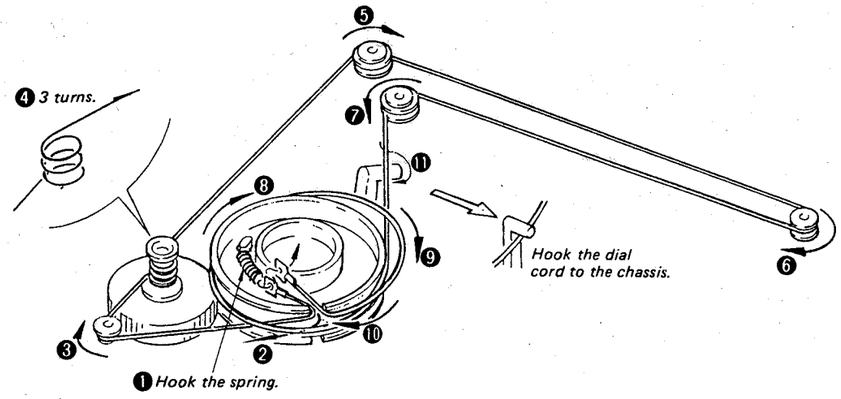


SECTION 3
DIAL CORD STRINGING

1) Dial Cord Preparation

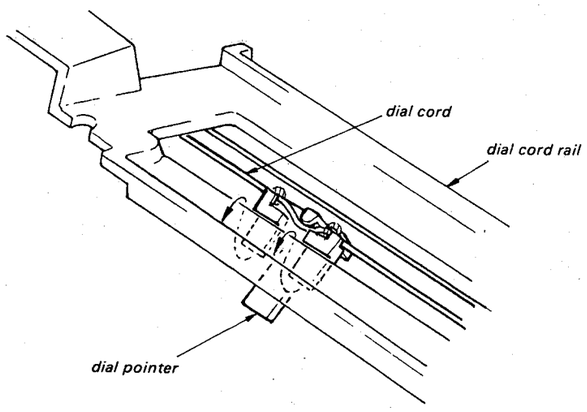


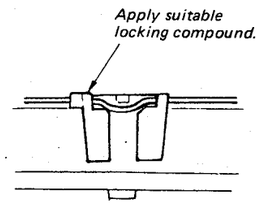
2) Dial Cord Stringing



3) Dial Pointer Setting

After the dial pointer is installed, receive an off-air signal and set the dial pointer on the dial scale.

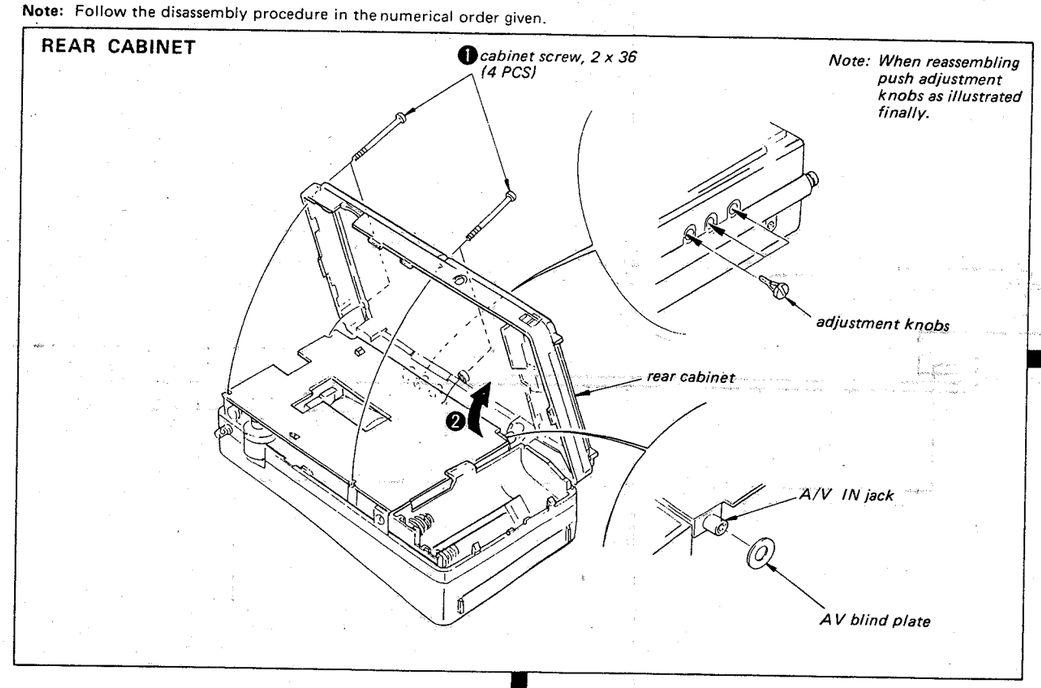


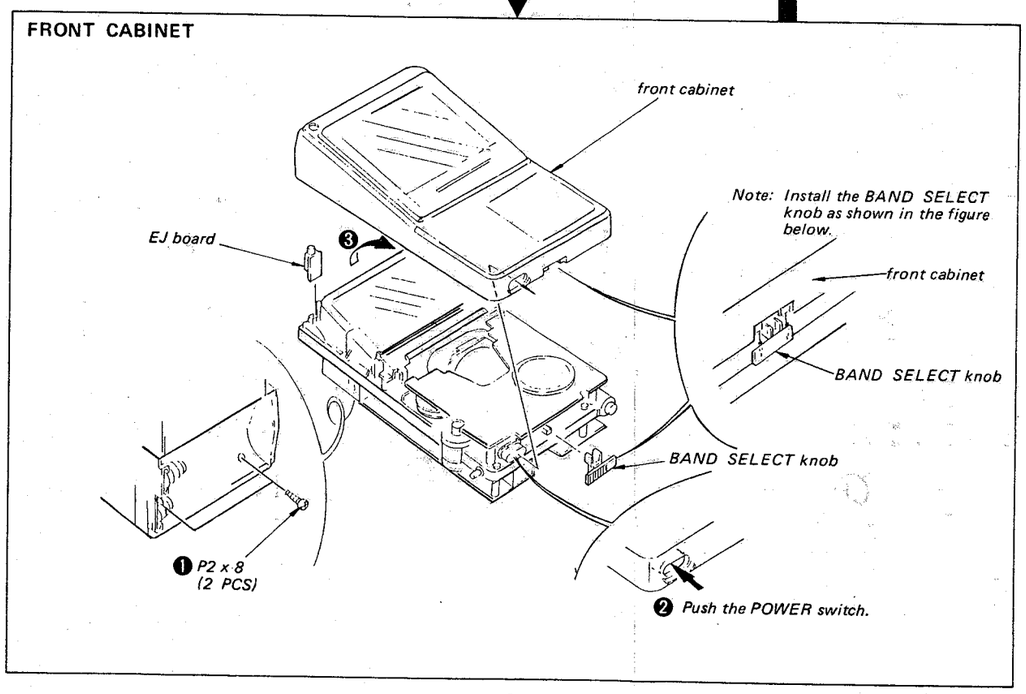


SECTION 4
DISASSEMBLY

REMOVAL

Note: Follow the disassembly procedure in the numerical order given.



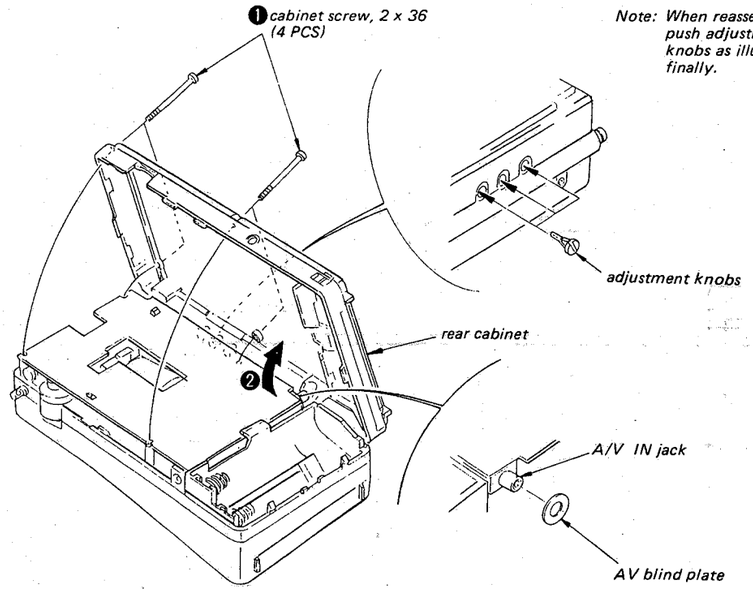


SECTION 4
DISASSEMBLY

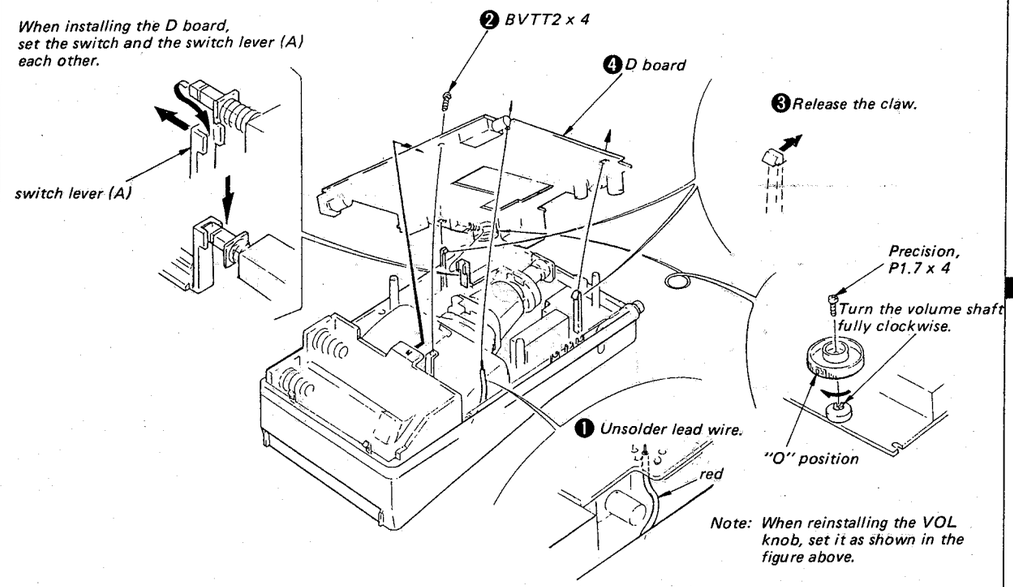
REMOVAL

Note: Follow the disassembly procedure in the numerical order given.

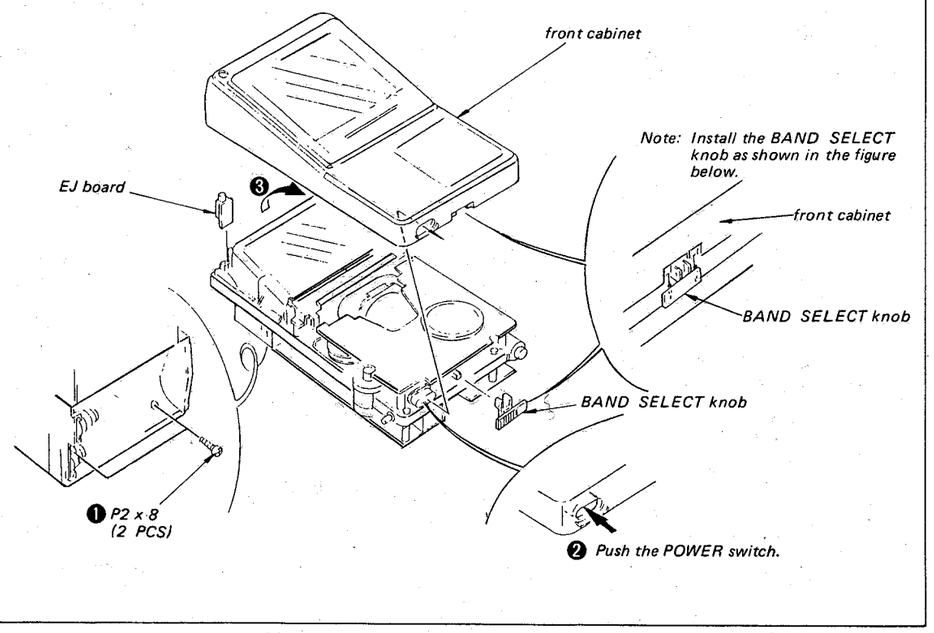
REAR CABINET


❶ cabinet screw, 2 x 36 (4 PCS)
Note: When reassembling push adjustment knobs as illustrated finally.
adjustment knobs
rear cabinet
❷
A/V IN jack
AV blind plate

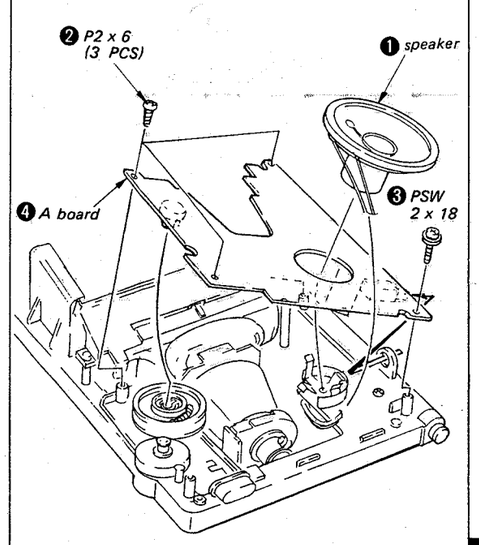
D BOARD


When installing the D board, set the switch and the switch lever (A) each other.
❷ BVTT2 x 4
❹ D board
❸ Release the claw.
switch lever (A)
Precision, P1.7 x 4
Turn the volume shaft fully clockwise.
❶ Unsolder lead wire.
"O" position
red
Note: When reinstalling the VOL knob, set it as shown in the figure above.

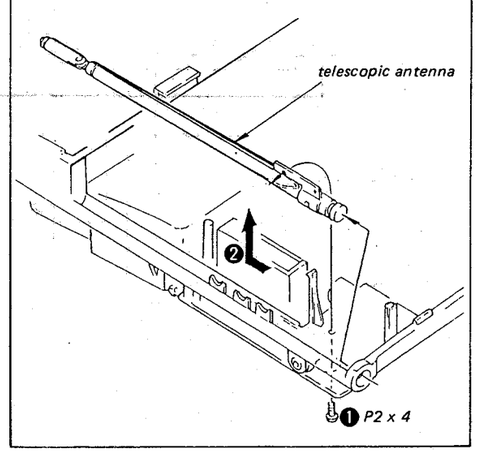
FRONT CABINET


front cabinet
Note: Install the BAND SELECT knob as shown in the figure below.
EJ board
❸
front cabinet
BAND SELECT knob
BAND SELECT knob
❶ P2 x 8 (2 PCS)
❷ Push the POWER switch.

A BOARD



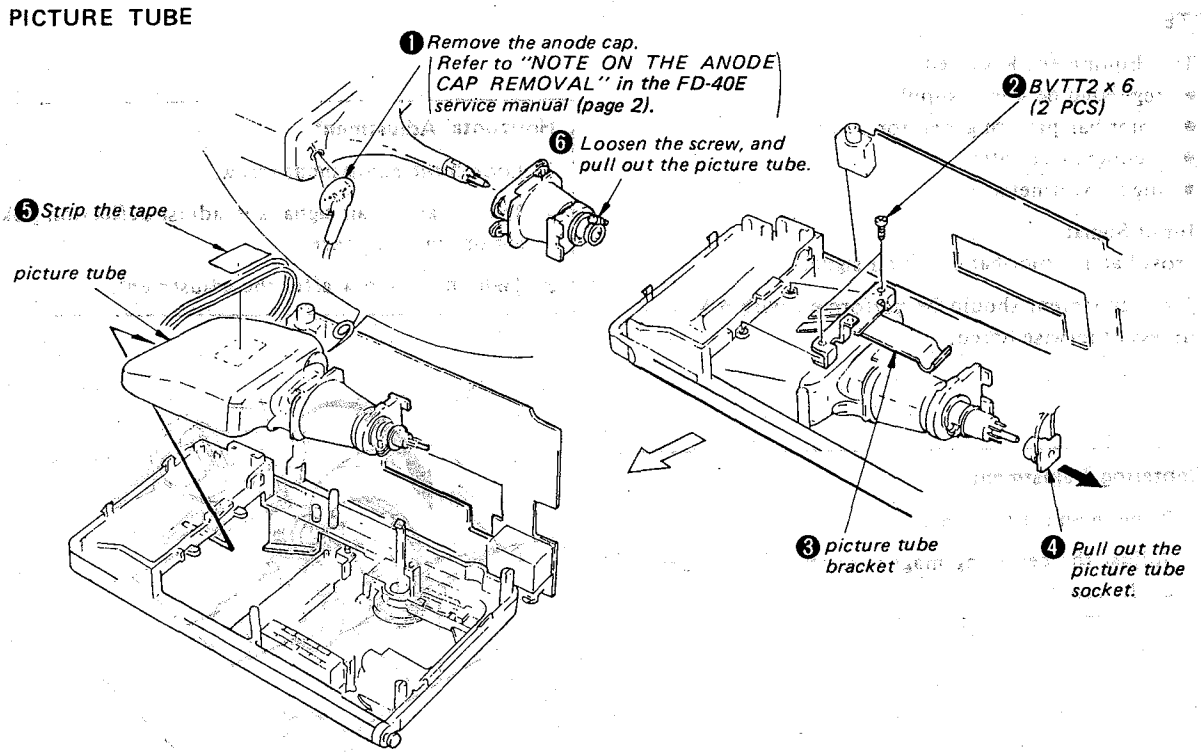
TELESCOPIC ANTENNA



DIAL CORD STRINGING

(See page 8)

PICTURE TUBE


❶ Remove the anode cap.
Refer to "NOTE ON THE ANODE CAP REMOVAL" in the FD-40E service manual (page 2).
❷ BVTT2 x 6 (2 PCS)
❸ picture tube bracket
❹ Pull out the picture tube socket.
❺ Strip the tape
picture tube
❻ Loosen the screw, and pull out the picture tube.

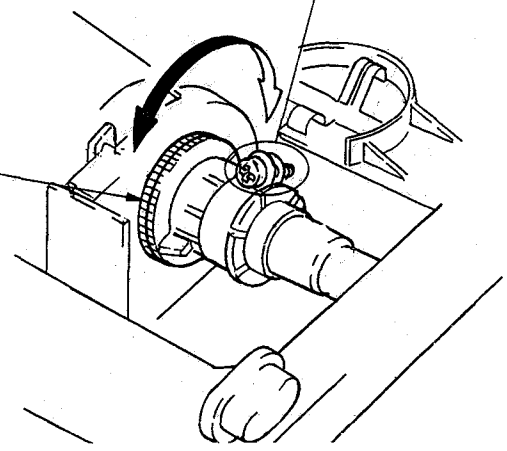
SECTION 5
ADJUSTMENTS

NOTE

1. Test Equipment Required
   - regulated dc power supply
   - color-bar/pattern generator
   - frequency counter
   - digital voltmeter
2. Input Signal
   cross hatch, color-bar or off-air signal.
3. The adjustment should be performed with 6 V dc unless otherwise noted.

Horizontal Adjustment

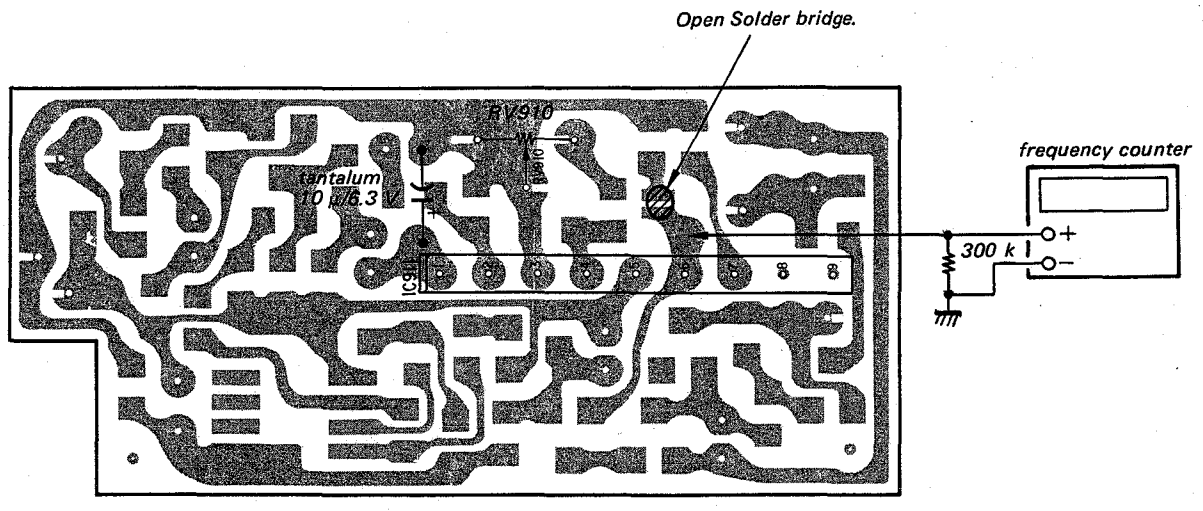
1. Loosen the adjustment screw.
2. Tune in an off-air signal a ıd adjust deflection yoke for optimum picture.
3. Tighten the screw after the adjustment.



Centering Adjustment

1. Tune in an off-air signal.
2. Adjust the centering magnet so that the picture is at the center.

Z BOARD ADJUSTMENT



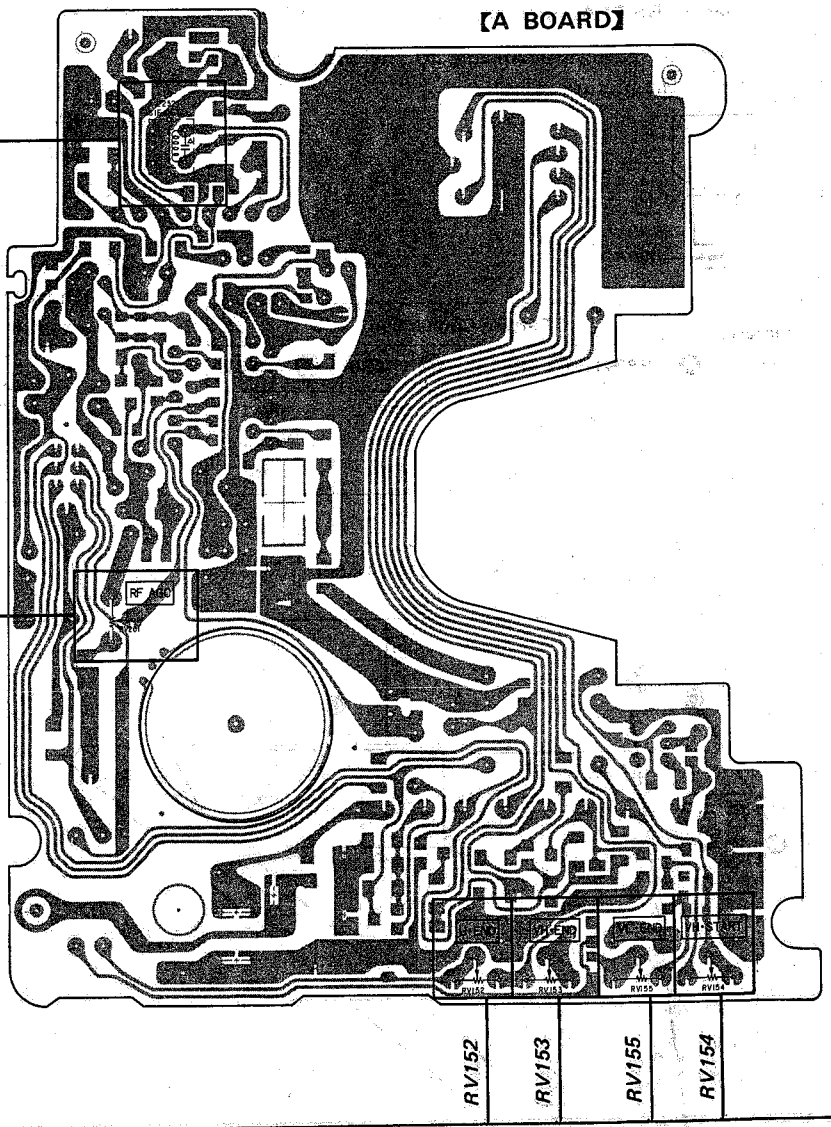
1. Connect a 10 µF 6.3 V tantalum capacitor in IC911 pin ① and ground.
2. Connect the frequency counter to IC911 pin ⑥.
3. Adjust RV910 for 31.15–31.35 kHz reading on frequency counter.
4. After the adjustment, remove the capacitor in step 1.

SIF Adjustment

1. Tune in an off-air signal.
2. Adjust L252 for maximum and clearest sound.

RF AGC Adjustment

1. Tune in an off-air signal.
2. Adjust RV201 so that snow noise disappears from the picture.

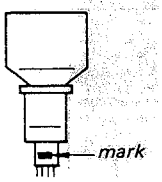


Channel Display Adjustment

1. Set the BAND SELECT switch to VHF.
2. Tune the set to the VHF channel 2 TV signal.
3. Set the dial pointer to the letter "2" on dial scale.
4. Turn the TUNING knob, set the dial pointer to the letter "4" on dial scale.
5. Adjust RV155 for the optimum picture. . . . . (VL·END)
6. Turn the TUNING knob, set the dial pointer to the letter "5" on dial scale.
7. Adjust RV154 for the optimum picture. . . . . (VH·START)
8. Turn the TUNING knob, set the dial pointer to the letter "12" on dial scale.
9. Adjust RV153 for the optimum picture. . . . . (VH·END)
10. Tune the set to VHF channel 5 to 12 and 2 to 4 TV signal in order. Confirm that the dial pointer is on the white line below the each channel indication.
11. Set the BAND SELECT switch to UHF.
12. Turn the TUNING knob, set the dial pointer to the letter "68" on dial scale.
13. Adjust RV152 for the optimum picture. . . . . (U·END)
14. Tune the set to the UHF channel 30 TV signal, and confirm that the difference between the dial scale and dial ponter is within ±3 channels.
15. After the adjustment, lock the dial cord and dial pointer with suitable locking compound.

Luminance (BRT) Adjustment

1. Bridge the pattern according to the mark on the neck of the picture tube.

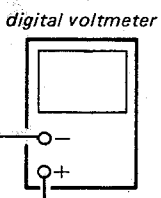


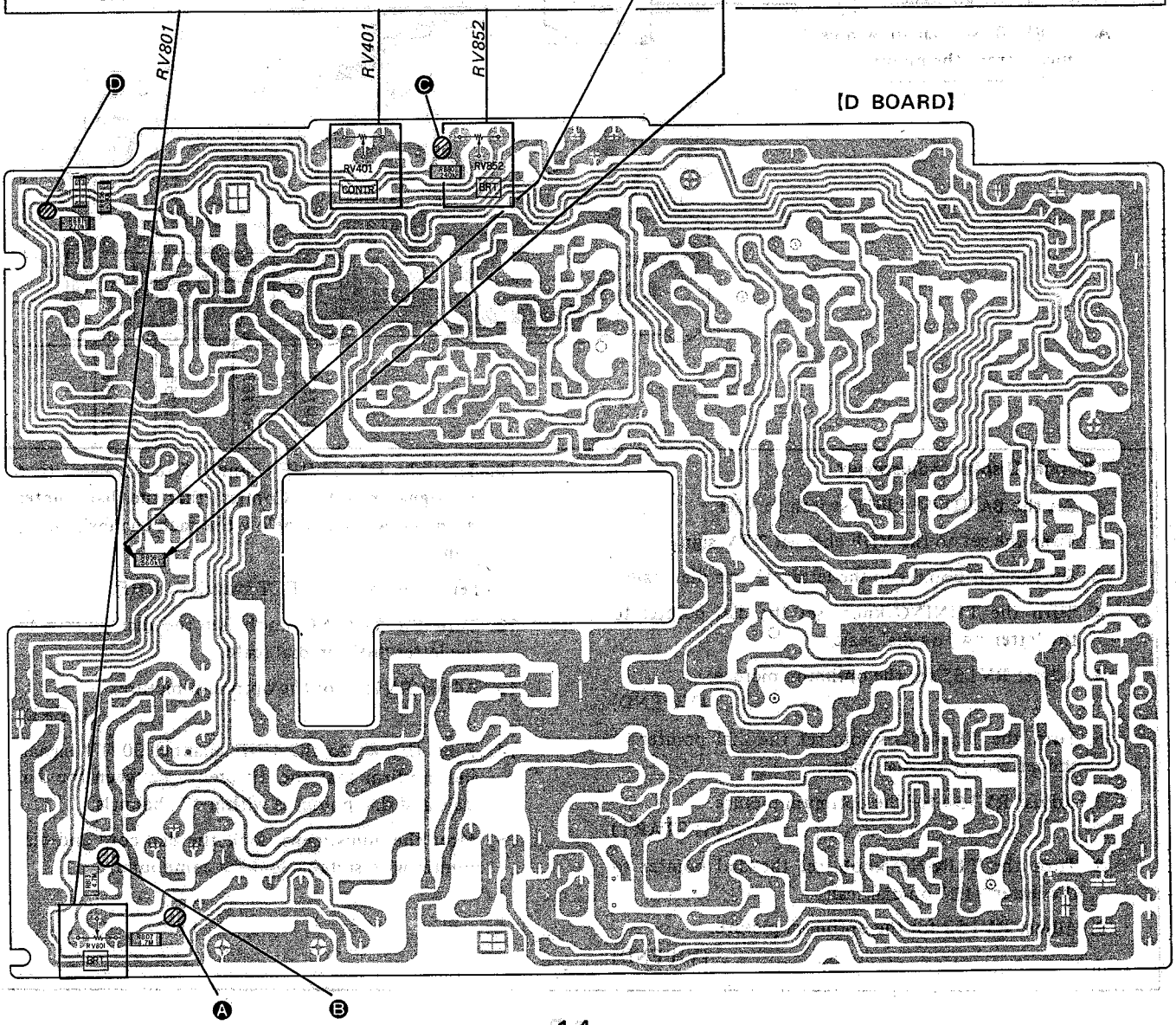
Picture Tube	Pattern Connection			
	Ⓐ (R807)	Ⓑ (R813)	Ⓒ (R880)	Ⓓ (R881)
red	short	open	open	short
no mark	short	open	short	open
blue	short	open	short	open

Note for using a blue marking picture tube:

- Change the value of JR1 and R856.
  JR1 0 Ω → 120 kΩ (1-216-248-00)
  R856 390 kΩ → 0 Ω

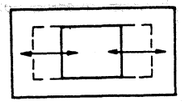
2. Turn CONTR control (RV401) fully clockwise and BRT control (RV852) fully counterclockwise.
3. Connect digital voltmeter across R858 and adjust RV802 for 8.1 – 8.7 V reading on digital voltmeter.
4. If the digital voltmeter reading is not met, unsolder pattern Ⓐ and repeat step 3.
5. After the adjustments, adjust BRT control (RV852) and CONTR control (RV401) so that best brightness and contrast are obtained.





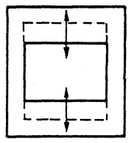
Horizontal Amplitude (H·SIZE) Adjustment

1. Tune in an off-air signal.
2. Adjust RV855 for the best horizontal amplitude.



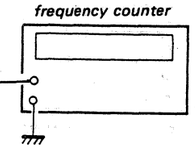
Vertical Amplitude (V·SIZE) Adjustment

1. Tune in an off-air signal
2. Adjust RV552 for the best vertical amplitude.



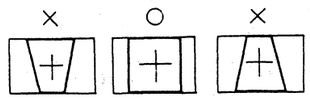
Horizontal Frequency (H·FREQ) Adjustment

1. Short-circuit between IC501 pin (9) and (10) with jumper wire.
2. Connect the frequency counter to IC501 pin (15).
3. Adjust RV501 for 15.565 – 15.685 kHz reading on frequency counter.
4. After the adjustment, remove the jumper wire in step 1.

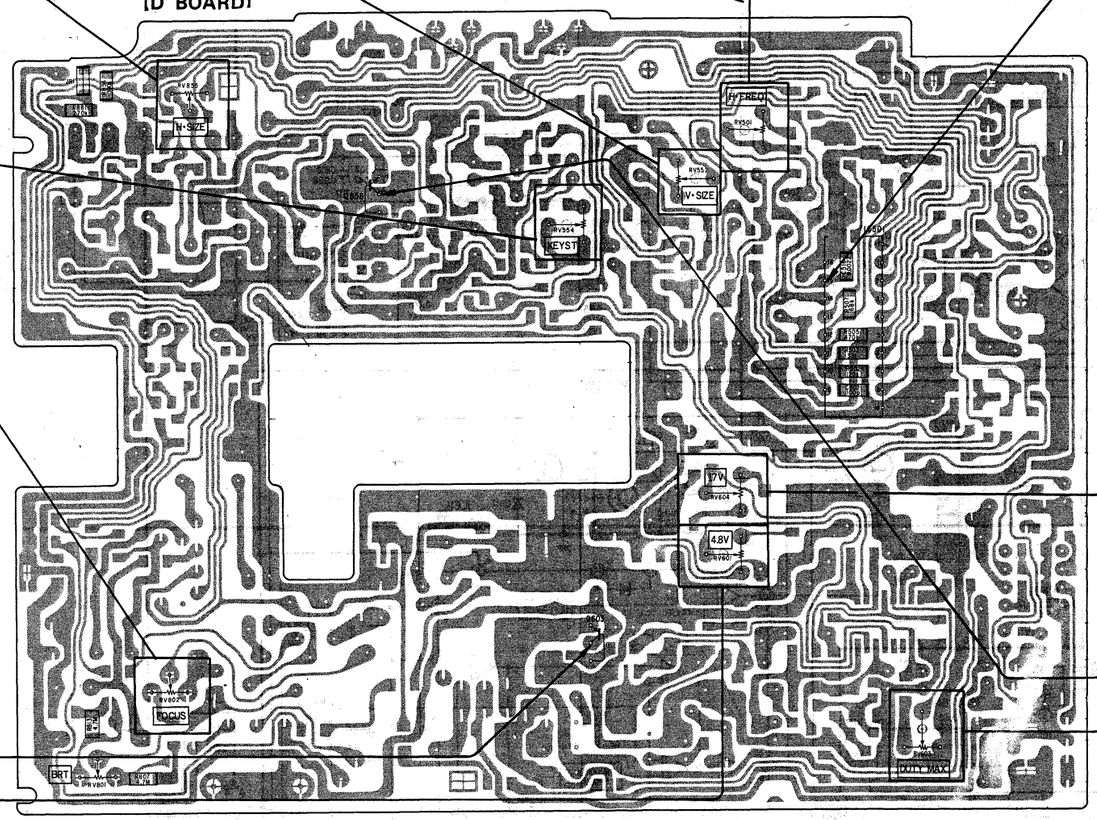


Keystone Correction (KEYST) Adjustment

1. Tune in an off-air signal.
2. Adjust RV554 for the optimum picture.



[D BOARD]

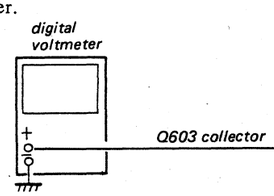


Focus Adjustment

1. Set the regulated dc power supply voltage to 4.5 V.
2. Tune in an off-air signal.
3. Adjust RV802 for the best focus at the center of the picture.

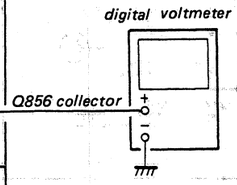
4.8 V Adjustment

1. Connect digital voltmeter to Q603 collector.
2. Adjust RV601 for 4.8 V reading on digital voltmeter.



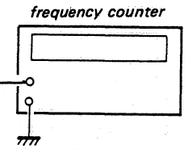
DUTY MAX Adjustment and 17 V Adjustment

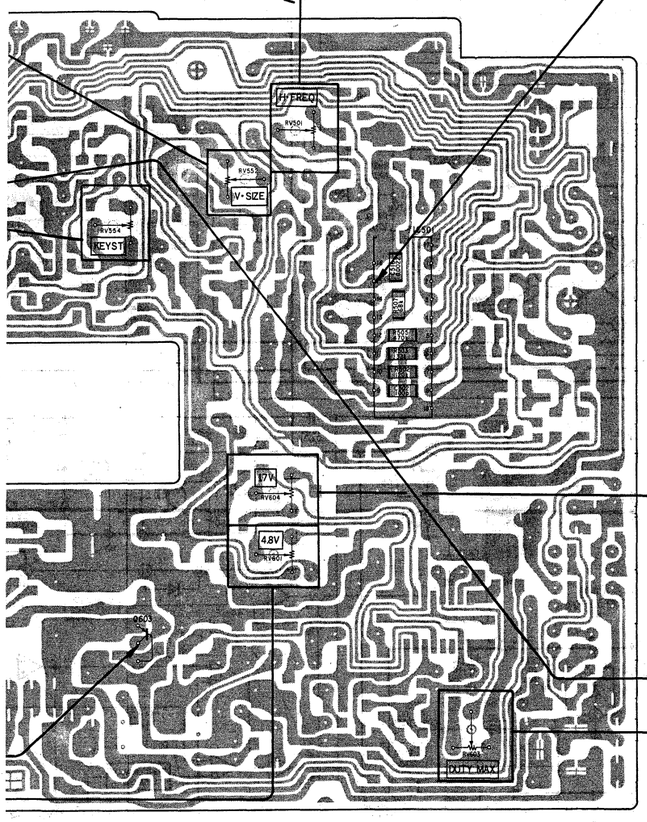
1. Set RV855 (H·SIZE) to the mechanical center.
2. Connect digital voltmeter to Q856 collector.
3. Adjust RV604 for a maximum reading on digital voltmeter.
4. Adjust the external dc power supply output to the DC IN 6 V jack to 4.8 V.
5. Adjust RV603 so that the digital voltmeter reading is 17 V. (Duty Max Adjustment)
6. Adjust the external dc power supply output to the DC IN 6 V jack to 6 V.
7. Adjust RV604 so that the digital voltmeter reading is 17 V. (17 V Adjustment)
8. After the adjustments, perform Horizontal Amplitude Adjustment.



Horizontal Frequency (H·FREQ) Adjustment

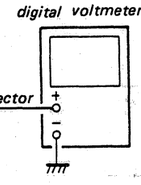
1. Short-circuit between IC501 pin (9) and (10) with jumper wire.
2. Connect the frequency counter to IC501 pin (15).
3. Adjust RV501 for 15.565 – 15.685 kHz reading on frequency counter.
4. After the adjustment, remove the jumper wire in step 1.





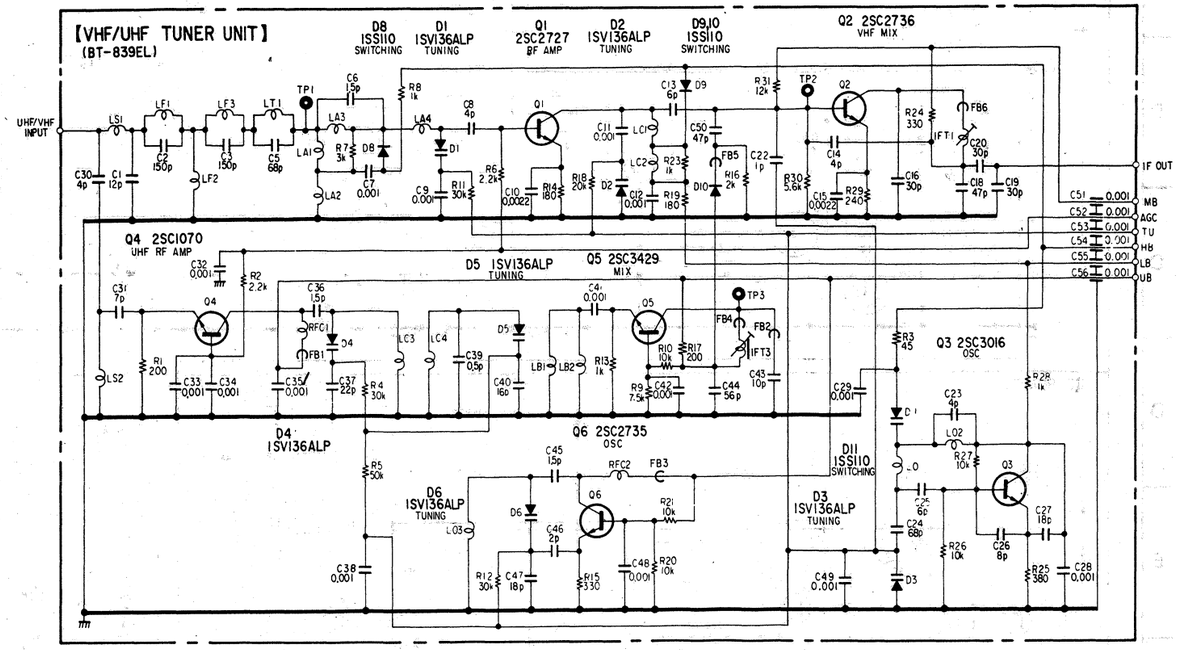
DUTY MAX Adjustment and 17 V Adjustment

1. Set RV855 (H·SIZE) to the mechanical center.
2. Connect digital voltmeter to Q856 collector.
3. Adjust RV604 for a maximum reading on digital voltmeter.
4. Adjust the external dc power supply output to the DC IN 6 V jack to 4.8 V.
5. Adjust RV603 so that the digital voltmeter reading is 17 V. (Duty Max Adjustment)
6. Adjust the external dc power supply output to the DC IN 6 V jack to 6 V.
7. Adjust RV604 so that the digital voltmeter reading is 17 V. (17 V Adjustment)
8. After the adjustments, perform Horizontal Amplitude Adjustment.



SECTION 6
DIAGRAMS

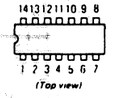
6-1. TUNER SCHEMATIC DIAGRAM
– VHF/UHF TUNER BT839EL –



Note: Tuner reference numbers are not included in the Electrical Parts List.

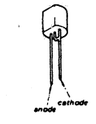
● **Semiconductor Lead Layouts.**

M51364P



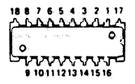
M51378L

μPC574J

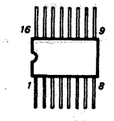


NJM386D

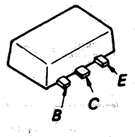
HA11441



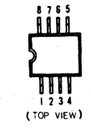
CX20159



2SB798
2SD1005
2SD1615A-P

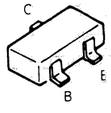


NJM2904M



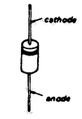
TA7370P

2SA812
2SC1623-L7
2SC1654
2SC2712
DTC114YK

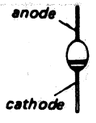


2SB962
2SC3073-Y
2SD1083L

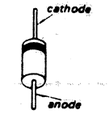
ERA81-004
ESJA57-04



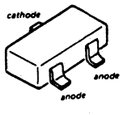
V19C



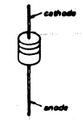
1S1585
RD4.7EBZ



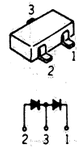
1S2837



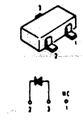
1SS119

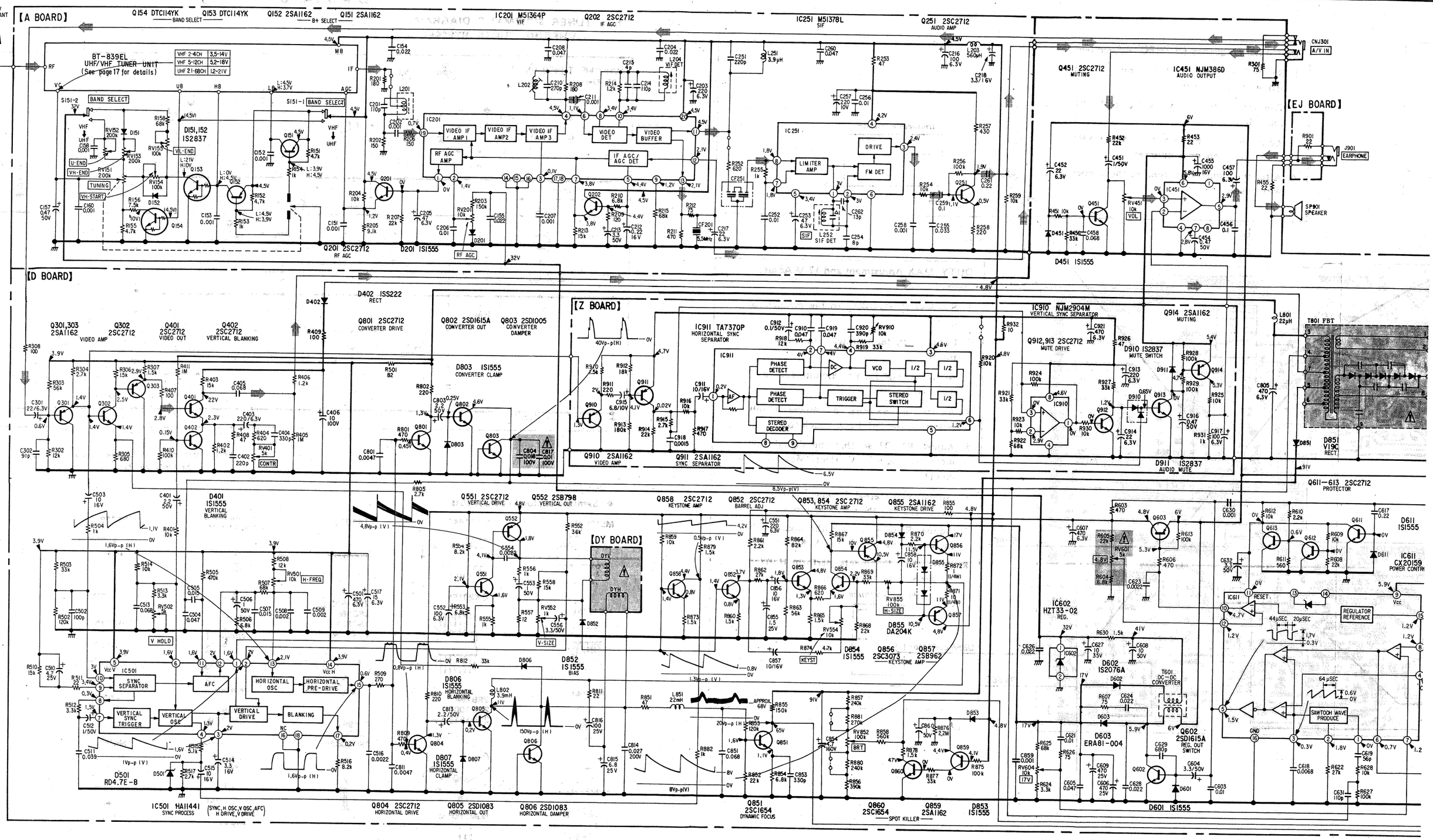


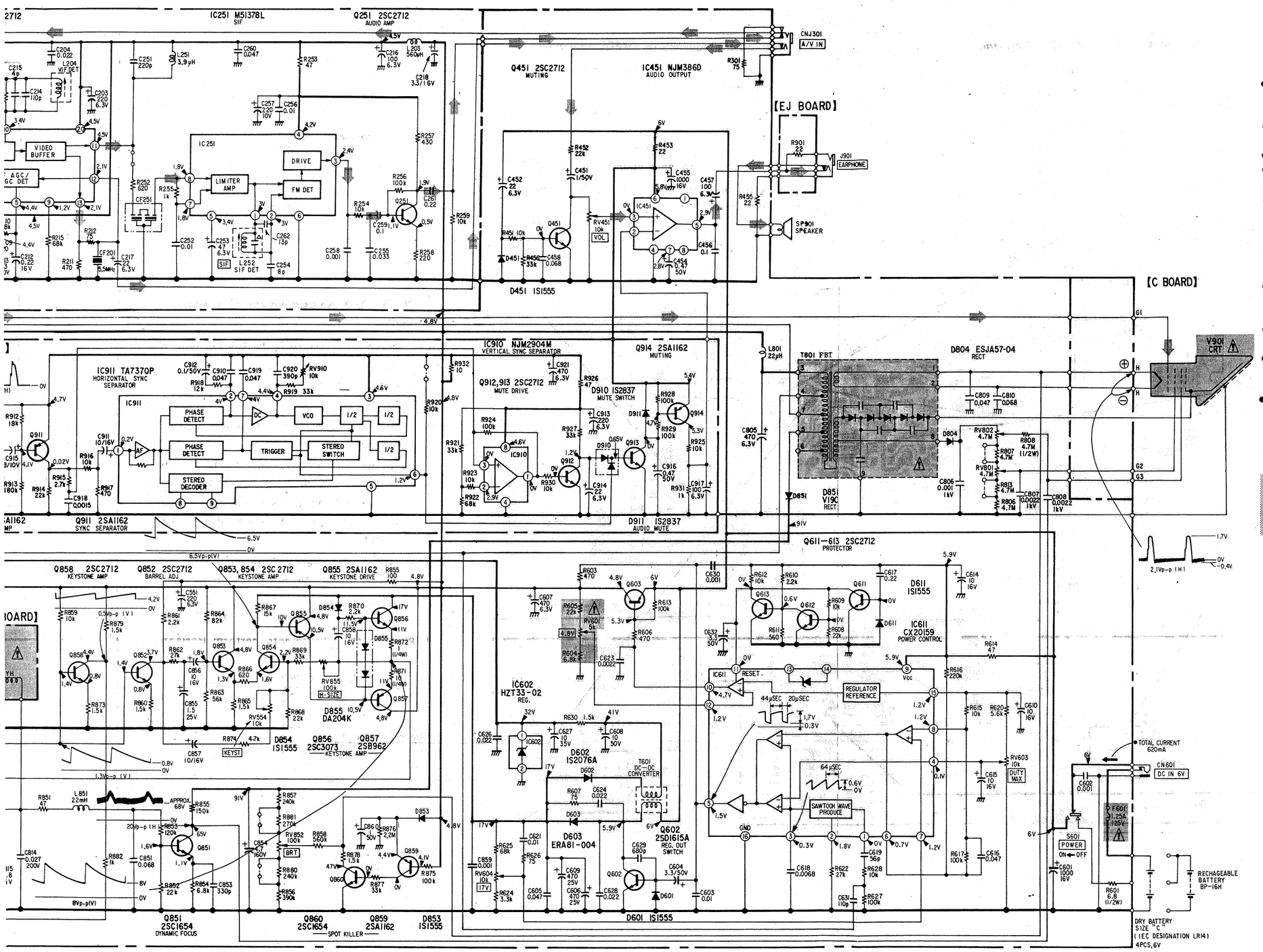
DA204K



1SS222




【A BOARD】
【D BOARD】
【Z BOARD】
【DY BOARD】
【EJ BOARD】
BT-839EL UHF/VHF TUNER UNIT (See page 17 for details)
Q154 DTC114YK BAND SELECT
Q153 DTC114YK
Q152 2SA1162 B+ SELECT
Q151 2SA1162
IC201 M51364P VIF
Q202 2SC2712 IF AGC
IC251 M51378L SIF
Q251 2SC2712 AUDIO AMP
Q451 2SC2712 MUTING
IC451 NJM386D AUDIO OUTPUT
CNJ301 A/V IN
J901 EARPHONE
SP901 SPEAKER
D451 1S1555
Q201 2SC2712 RF AGC
D201 1S1555
Q301,303 2SA1162 VIDEO AMP
Q302 2SC2712
Q401 2SC2712 VIDEO OUT
Q402 2SC2712 VERTICAL BLANKING
D402 1SS222 RECT
Q801 2SC2712 CONVERTER DRIVE
Q802 2SD1615A CONVERTER OUT
Q803 2SD1005 CONVERTER DAMPER
D803 1S1555 CONVERTER CLAMP
IC911 TA7370P HORIZONTAL SYNC SEPARATOR
PHASE DETECT
VCO
TRIGGER
STEREO SWITCH
STEREO DECODER
Q910 2SA1162 VIDEO AMP
Q911 2SA1162 SYNC SEPARATOR
IC910 NJM2904M VERTICAL SYNC SEPARATOR
Q912,913 2SC2712 MUTE DRIVE
D910 1S2837 MUTE SWITCH
Q914 2SA1162 MUTING
D911 1S2837 AUDIO MUTE
T801 FBT
D851 V19C RECT
Q611-613 2SC2712 PROTECTOR
D401 1S1555 VERTICAL BLANKING
Q551 2SC2712 VERTICAL DRIVE
Q552 2SB798 VERTICAL OUT
Q858 2SC2712 KEYSTONE AMP
Q852 2SC2712 BAREL ADJ
Q853,854 2SC2712 KEYSTONE AMP
Q855 2SA1162 KEYSTONE DRIVE
D855 DA204K
Q856 2SC3073
Q857 2SB962 KEYSTONE AMP
D854 1S1555
D852 1S1555 BIAS
IC501 HA11441 SYNC PROCESS
SYNC SEPARATOR
AFC
VERTICAL SYNC TRIGGER
VERTICAL OSC
VERTICAL DRIVE
BLANKING
HORIZONTAL OSC
HORIZONTAL PRE-DRIVE
D501 RD4.7E-B
D806 1S1555 HORIZONTAL BLANKING
D807 1S1555 HORIZONTAL CLAMP
Q804 2SC2712 HORIZONTAL DRIVE
Q805 2SD1083 HORIZONTAL OUT
Q806 2SD1083 HORIZONTAL DAMPER
Q851 2SC1654 DYNAMIC FOCUS
Q860 2SC1654
Q859 2SA1162 SPOT KILLER
D853 1S1555
IC602 HZT33-02 REG.
D602 1S2076A
T601 DC-DC CONVERTER
Q602 2SD1615A REG. OUT SWITCH
D603 ERA81-004
D601 1S1555
IC611 CX20159 POWER CONTR
REGULATOR REFERENCE
SWITCH WAVE PRODUCE
D611 1S1555
VHF 2-4CH 3.5-14V
VHF 5-12CH 5.2-18V
UHF 21-68CH 12-21V
BAND SELECT
U-END
VH-END
VL-END
TUNING
VH-START
V HOLD
H-FREQ
V-SIZE
H-SIZE
CONTR
VOL
KEYST
SIF
RF AGC
VIDEO IF AMP1
VIDEO IF AMP2
VIDEO IF AMP3
VIDEO DET
VIDEO BUFFER
RF AGC AMP
IF AGC/ AGC DET
LIMITER AMP
FM DET
DRIVE
SIF DET
DY
DYH
DYV



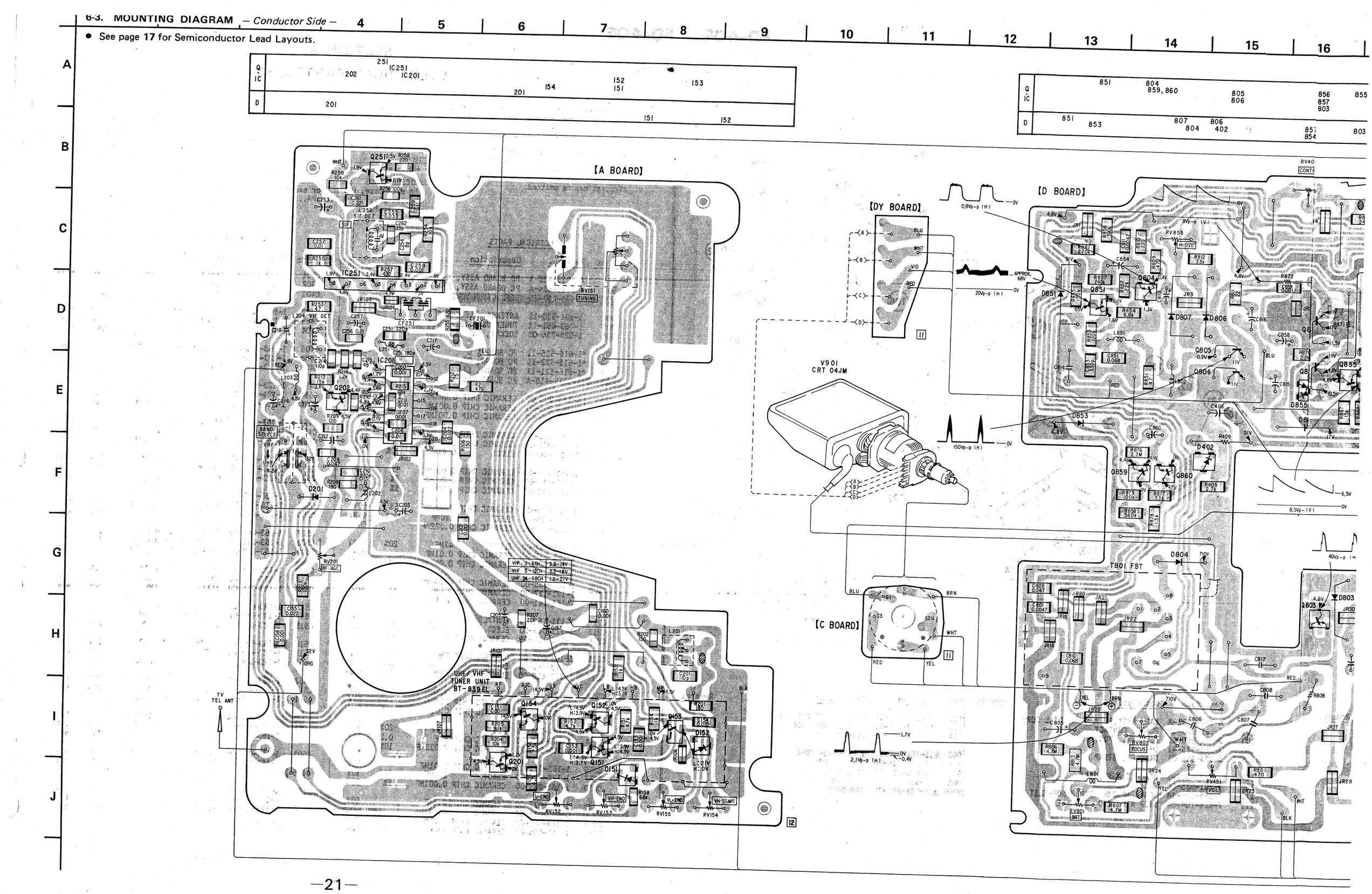
Note:

- The components identified by ⚠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- **All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.**
- **All resistors are in ohms, 1/8W unless otherwise noted. kΩ: 1000 Ω, MΩ: 1000 kΩ**
- ▨ : signal path.
- ▭ : adjustment for repair.
- ▬ : B+ bus.
- Power voltage is 6V and fed with regulated dc power supply from DC IN 6V (external power input) jack.
  no mark: VHF
  L: VHF low channel (2 – 6 CH)
  H: VHF high channel (7 – 13 CH)
  ( ): UHF
- Voltages are dc with respect to ground in detuned mode. Voltage variations may be noted due to normal production tolerances.
- Total current is measured at deturned mode with VOL knob turned downwards (MIN).
- Waveforms are taken to ground in detuned mode by using oscilloscope. Voltage variations may be noted due to normal production tolerances.
- **Switch**

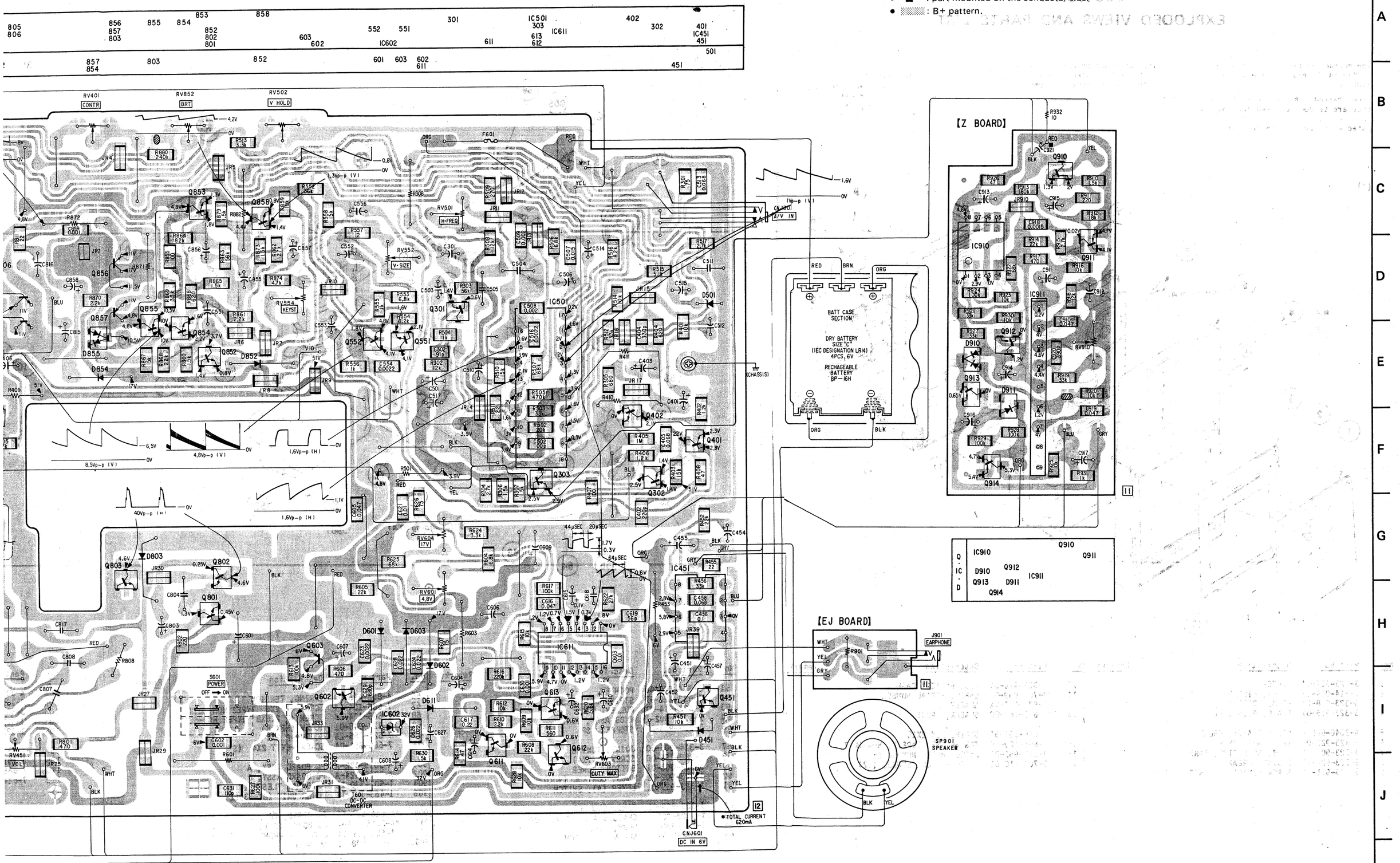
Ref. No.	Switch	Position
S151	BAND SELECT	VHF
S601	POWER	OFF

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

• See page 17 for Semiconductor Lead Layouts.



Note:
- ■ : part mounted on the conductor side.
- ▒ : B+ pattern.



【Z BOARD】

【EJ BOARD】

SECTION 7
EXPLODED VIEWS AND PARTS LIST

NOTE:

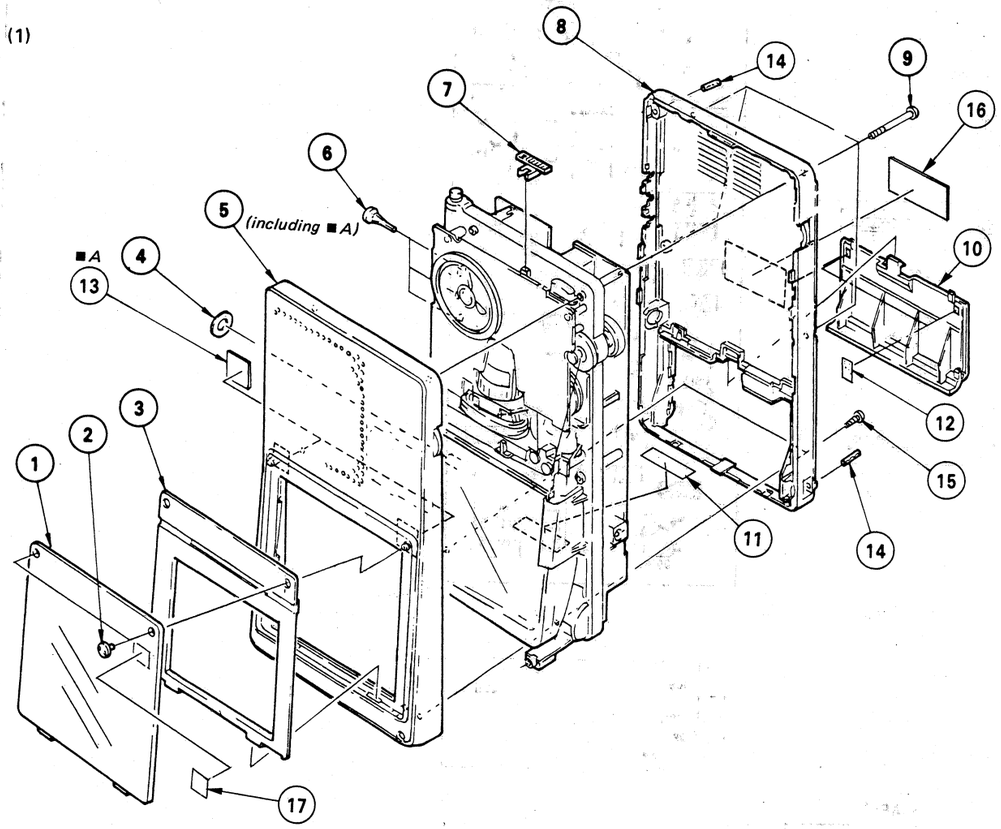
The mechanical parts with no reference number in the exploded views are not supplied.

Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

· The construction parts of an assembled part are indicated with a collation number in the remark column.

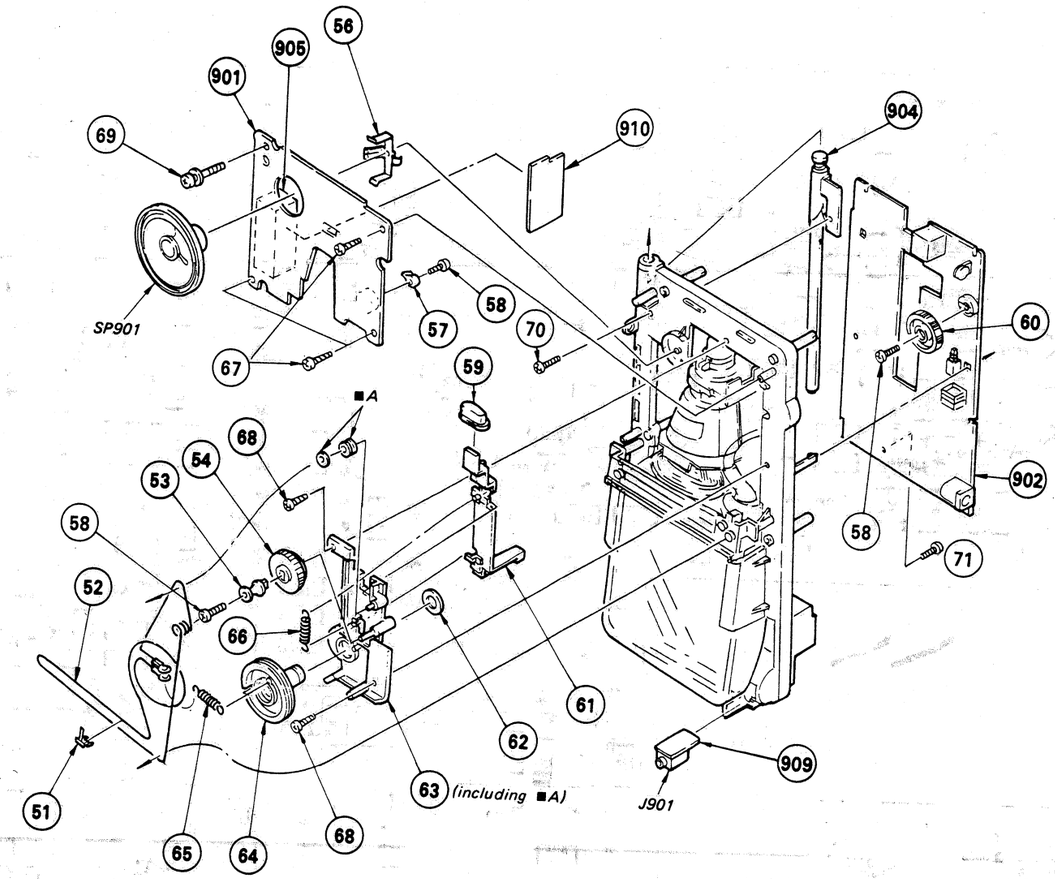
The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

(1)



No.	Part No.	Description	Remarks
1	3-323-917-11	FILTER	
2	3-314-014-11	SCREW, FILTER	
3	3-323-918-21	FRAME, DISPLAY	
4	*3-323-915-01	PLATE, BLIND, AV	
5	A-3040-661-A	CABINET ASSY, FRONT	
6	3-323-922-01	KNOB, ADJUSTMENT	
7	3-323-904-01	KNOB, SELECTION, BAND	
8	3-323-924-41	CABINET, REAR	
9	3-323-901-11	SCREW (2X36), CABINET	
10	3-323-916-31	LID, BATTERY CASE	
11	*3-701-999-00	LABEL, SERIAL NUMBER	
12	3-831-441-XX	SPACER	
13	*3-892-163-00	SPACER, FRONT	13
14	7-626-301-31	SPRING PIN 2X10	
15	7-685-105-14	TPG +P 2X8, TYPE 2, NON-SLIT	
16	3-323-962-01	LABEL, MODEL NUMBER (E)	
17	3-703-710-01	STICKER, SONY SYMBOL (12)	

(2)

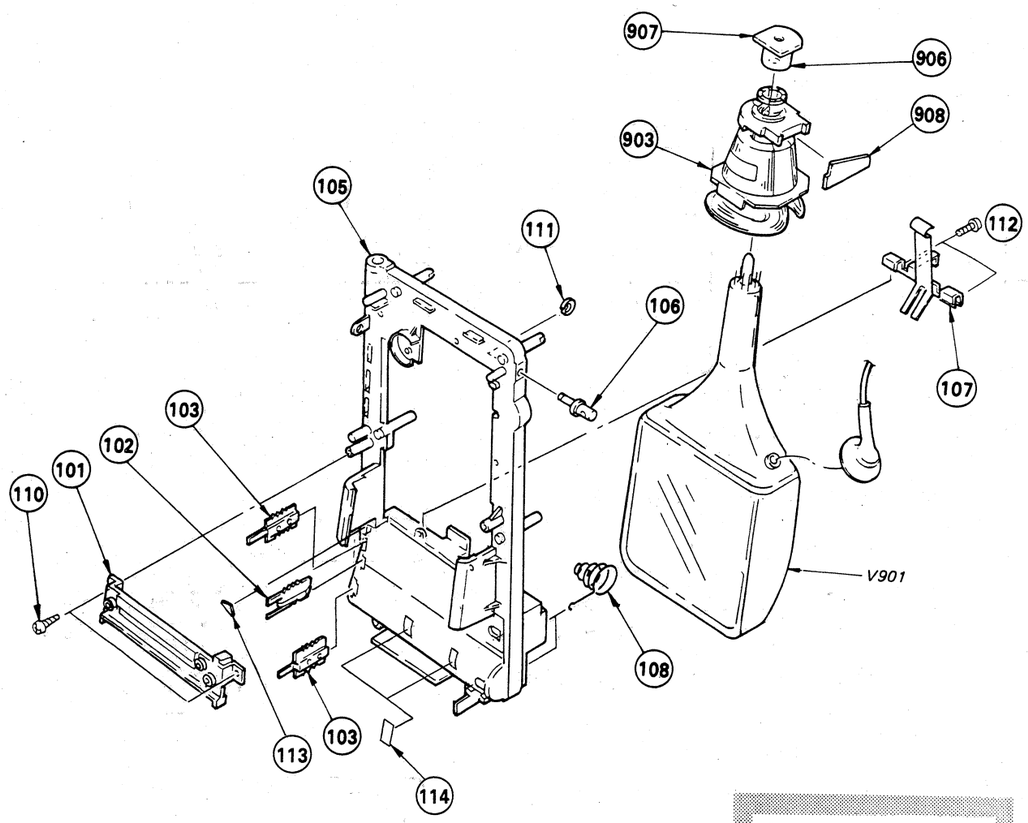


No.	Part No.	Description	Remarks
51	3-314-008-00	POINTER	
52	7-633-120-67	STRING DIAL 0.3DIA	
53	3-323-914-01	PULLEY, DIAL	
54	X-3323-902-1	KNOB ASSY, TUNING	
56	3-323-913-01	STOPPER, SP	
57	3-314-006-00	JOINT, TUNING	
58	3-888-156-00	SCREW (1.7X4)	
59	3-323-903-01	BUTTON, POWER	
60	3-323-902-01	KNOB, CONTROL (VOL)	
61	3-323-919-01	LEVER (A), SWITCH	
62	3-323-929-01	RING, STOPPER	
63	X-3323-905-1	CHASSIS ASSY, DIAL CORD	
64	3-323-904-01	DRUM, DIAL	
65	3-564-949-00	SPRING, TENSION	
66	4-858-478-00	SPRING, TENSION	
67	7-685-104-14	SCREW +P 2X6 TYPE2 NON-SLIT	
68	7-685-134-14	SCREW +P 2.6X8 TYPE2 NON-SLIT	
69	3-323-948-01	SCREW (M2X18)	
70	7-621-255-25	SCREW +P 2X4	
71	7-685-851-04	SCREW +BVTT 2X4 (S)	
901	A-3015-422-A	PC BOARD ASSY, A	
902	A-3015-424-A	PC BOARD ASSY, D	
904	1-501-330-11	ANTENNA, TLESCOPIC	
905	1-463-651-11	TUNER UNIT (BT-839EL)	
909	*1-616-521-11	PC BOARD, EJ	
910	*A-3015-418-A	PC BOARD ASSY, Z	
J901	1-507-969-11	JACK (EARPHONE)	
SP901	1-503-408-11	SPEAKER	

(3)

No.	Part
101	A-303
102	3-323
103	3-501
105	3-323
106	3-323
107	*X-332
108	3-701
110	7-685
111	7-624

(3)



The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

No.	Part No.	Description	Remarks
101	A-3039-031-A	RAIL ASSY,SUSPENDER, DIAL CORD	
102	3-323-908-01	PLATE, CONTACT	
103	3-501-056-11	TERMINAL, POSITIVE	
105	3-323-925-41	CHASSIS	
106	3-323-926-01	BRACKET, STRAP	
107	*X-3323-903-1	BRACKET ASSY, CRT	
108	3-701-835-00	SPRING	
110	7-685-104-14	SCREW +P 2X6 TYPE2 NON-SLIT	
111	7-624-104-04	STOP RING 2.0, TYPE -E	

No.	Part No.	Description	Remarks
112	7-685-854-01	SCREW +BVTT 2X8 (S)	
113	*3-323-941-01	PLATE, INDUCTION	
114	3-831-441-11	CUSHION (B)	
903	⚠1-451-257-11	DEFLECTION YOKE	
906	1-526-736-00	SOCKET, CRT	
907	*1-616-525-11	PC BOARD, C	
908	*1-616-523-11	PC BOARD, DY	
V901	⚠8-736-851-05	CRT 04JM	

SECTION 8
ELECTRICAL PARTS LIST

NOTE:
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
901	A-3015-422-A	PC BOARD ASSY, A
902	A-3015-424-A	PC BOARD ASSY, D
903	⚠1-451-257-11	DEFLECTION YOKE
904	1-501-330-11	ANTENNA, TLESCOPIC
905	1-463-651-11	TUNER UNIT (BT-839EL)
906	1-526-736-00	SOCKET, CRT
907	*1-616-525-11	PC BOARD, C
908	*1-616-523-11	PC BOARD, DY
909	*1-616-521-11	PC BOARD, EJ
910	*A-3015-418-A	PC BOARD ASSY, Z
C151	1-163-205-00	CERAMIC CHIP 0.001MF 5% 50V
C152	1-163-205-00	CERAMIC CHIP 0.001MF 5% 50V
C153	1-163-205-00	CERAMIC CHIP 0.001MF 5% 50V
C154	1-163-033-00	CERAMIC CHIP 0.022MF 50V
C155	1-163-073-00	CERAMIC CHIP 0.022MF 50V
C157	1-123-610-00	ELECT 0.47MF 20% 50V
C158	1-163-205-00	CERAMIC CHIP 0.001MF 5% 50V
C160	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V
C201	1-163-182-00	CERAMIC CHIP 110PF 5% 50V
C202	1-163-205-00	CERAMIC CHIP 0.001MF 5% 50V
C203	1-124-635-00	ELECT 220MF 20% 6.3V
C204	1-163-073-00	CERAMIC CHIP 0.022MF 50V
C205	1-123-647-00	ELECT 47MF 20% 6.3V
C206	1-163-021-00	CERAMIC CHIP 0.01MF 50V
C207	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V
C208	1-163-035-00	CERAMIC CHIP 0.047MF 50V
C210	1-163-127-00	CERAMIC CHIP 270PF 5% 50V
C211	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V
C212	1-131-453-00	TANTALUM 0.22MF 20% 16V
C213	1-123-613-00	ELECT 3.3MF 20% 50V
C214	1-163-118-00	CERAMIC CHIP 110PF 5% 50V
C215	1-163-087-00	CERAMIC CHIP 4PF 5% 50V
C216	1-123-661-00	ELECT 100MF 20% 6.3V
C217	1-123-618-00	ELECT 22MF 20% 6.3V
C218	1-131-368-00	TANTALUM 3.3MF 20% 16V
C251	1-163-125-00	CERAMIC CHIP 220PF 5% 50V
C252	1-163-059-00	CERAMIC CHIP 0.01MF 10% 50V
C253	1-124-224-00	ELECT 47MF 20% 6.3V
C254	1-163-155-00	CERAMIC CHIP 8PF 0.25PF 50V
C255	1-163-074-00	CERAMIC CHIP 0.033MF 10% 25V
C256	1-163-021-00	CERAMIC CHIP 0.01MF 50V
C257	1-124-444-00	ELECT 220MF 20% 10V
C258	1-163-205-00	CERAMIC CHIP 0.001MF 5% 50V
C259	1-163-077-00	CERAMIC CHIP 0.1MF 50V
C260	1-163-035-00	CERAMIC CHIP 0.047MF 50V
C261	1-163-081-00	CERAMIC CHIP 0.22MF 25V
C262	1-163-096-00	CERAMIC CHIP 13PF 5% 50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C301	1-123-618-00	ELECT 22MF 20% 6.3V
C302	1-163-116-00	CERAMIC CHIP 91PF 5% 50V
C401	1-124-257-00	ELECT 2.2MF 20% 50V
C402	1-163-189-00	CERAMIC CHIP 220PF 10% 50V
C403	1-123-308-00	ELECT 220MF 20% 6.3V
C404	1-163-193-00	CERAMIC CHIP 330PF 5% 50V
C405	1-163-076-00	CERAMIC CHIP 0.068MF 50V
C406	1-123-384-00	ELECT 10MF 20% 100V
C451	1-123-611-00	ELECT 1MF 20% 50V
C452	1-123-618-00	ELECT 22MF 20% 6.3V
C454	1-124-253-00	ELECT 0.47MF 20% 50V
C455	1-124-555-00	ELECT 1000MF 20% 16V
C456	1-163-077-00	CERAMIC CHIP 0.1MF 50V
C457	1-123-661-00	ELECT 100MF 20% 6.3V
C458	1-163-076-00	CERAMIC CHIP 0.068MF 50V
C501	1-124-470-11	ELECT 470MF 20% 6.3V
C502	1-163-181-00	CERAMIC CHIP 100PF 5% 50V
C503	1-123-617-00	ELECT 10MF 20% 16V
C504	1-130-491-00	MYLAR 0.047MF 5% 50V
C505	1-130-485-00	MYLAR 0.015MF 5% 50V
C506	1-123-611-00	ELECT 1MF 20% 50V
C507	1-163-061-00	CERAMIC CHIP 0.015MF 10% 50V
C508	1-163-212-00	CERAMIC CHIP 0.002MF 5% 50V
C509	1-163-212-00	CERAMIC CHIP 0.002MF 5% 50V
C510	1-123-616-00	ELECT 4.7MF 20% 25V
C511	1-136-160-00	MYLAR 0.039MF 5% 50V
C512	1-124-255-00	ELECT 1MF 20% 50V
C513	1-163-076-00	CERAMIC CHIP 0.068MF 50V
C514	1-131-368-00	TANTALUM 3.3MF 10% 16V
C515	1-123-617-00	ELECT 10MF 20% 16V
C516	1-163-213-00	CERAMIC CHIP 0.0022MF 10% 50V
C517	1-127-483-00	ELECT(SOLID) 15MF 20% 6.3V
C551	1-123-308-00	ELECT 220MF 20% 6.3V
C552	1-123-661-00	ELECT 100MF 20% 6.3V
C553	1-123-611-00	ELECT 1MF 20% 50V
C554	1-163-213-00	CERAMIC CHIP 0.0022MF 10% 50V
C556	1-123-613-00	ELECT 3.3MF 20% 50V
C601	1-123-839-00	ELECT 1000MF 20% 16V
C602	1-163-205-00	CERAMIC CHIP 0.001MF 5% 50V
C603	1-163-059-00	CERAMIC CHIP 0.01MF 10% 50V
C604	1-123-613-00	ELECT 3.3MF 20% 50V
C605	1-163-075-00	CERAMIC CHIP 0.047MF 10% 25V
C606	1-124-480-11	ELECT 470MF 20% 25V
C607	1-124-470-11	ELECT 470MF 20% 6.3V
C608	1-123-816-00	ELECT 10MF 20% 50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C609	1-124-480-11	ELECT	470MF	20%	25V
C610	1-123-617-00	ELECT	10MF	20%	16V
C614	1-123-617-00	ELECT	10MF	20%	16V
C615	1-123-617-00	ELECT	10MF	20%	16V
C616	1-163-075-00	CERAMIC CHIP	0.047MF	10%	25V
C617	1-163-081-00	CERAMIC CHIP	0.22MF		25V
C618	1-130-481-00	MYLAR	0.0068MF	5%	50V
C619	1-163-175-00	CERAMIC CHIP	56PF	5%	50V
C621	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C623	1-163-213-00	CERAMIC CHIP	0.0022MF	10%	50V
C624	1-163-073-00	CERAMIC CHIP	0.022MF		50V
C626	1-163-073-00	CERAMIC CHIP	0.022MF		50V
C627	1-123-620-00	ELECT	10MF	20%	35V
C628	1-163-073-00	CERAMIC CHIP	0.022MF		50V
C629	1-163-201-00	CERAMIC CHIP	680PF	5%	50V
C630	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C631	1-163-182-00	CERAMIC CHIP	110PF	5%	50V
C632	1-123-613-00	ELECT	3.3MF	20%	50V
C801	1-163-055-00	CERAMIC CHIP	0.0047MF	10%	50V
C803	1-123-612-00	ELECT	2.2MF	20%	50V
C804	1-106-202-00	MYLAR	0.018MF	5%	100V
C805	1-123-298-00	ELECT	470MF	20%	6.3V
C806	1-162-146-00	CERAMIC	0.001MF		1KV
C807	1-162-147-00	CERAMIC	0.0022MF		1KV
C808	1-162-147-00	CERAMIC	0.0022MF		1KV
C809	1-163-075-00	CERAMIC CHIP	0.047MF	10%	25V
C810	1-163-076-00	CERAMIC CHIP	0.068MF		50V
C811	1-163-055-00	CERAMIC CHIP	0.0047MF	10%	50V
C813	1-123-612-00	ELECT	2.2MF	20%	50V
C814	1-106-377-00	MYLAR	0.027MF	5%	200V
C815	1-127-511-00	ELECT(SOLID)	6.8MF	20%	25V
C816	1-123-333-00	ELECT	100MF	20%	25V
C817	1-106-196-00	MYLAR	0.01MF	5%	100V
C851	1-163-076-00	CERAMIC CHIP	0.068MF		50V
C853	1-163-193-00	CERAMIC CHIP	330PF	5%	50V
C854	1-123-932-00	ELECT	4.7MF	20%	160V
C855	1-131-354-00	TANTALUM	1.5MF	10%	25V
C856	1-123-617-00	ELECT	10MF	20%	16V
C857	1-123-617-00	ELECT	10MF	20%	16V
C858	1-123-617-00	ELECT	10MF	20%	16V
C859	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C860	1-123-611-00	ELECT	1MF	20%	50V
C910	1-163-035-00	CERAMIC CHIP	0.047MF	10%	25V
C911	1-123-617-00	ELECT	10MF	20%	16V
C912	1-123-607-00	ELECT	0.1MF	20%	50V
C913	1-124-635-00	ELECT	220MF	20%	6.3V
C914	1-123-618-00	ELECT	22MF	20%	6.3V
C915	1-124-226-41	ELECT	6.8MF	20%	10V
C916	1-123-610-00	ELECT	0.47MF	20%	50V
C917	1-124-225-00	ELECT	100MF	20%	6.3V
C918	1-163-145-00	CERAMIC CHIP	0.0015MF	10%	50V
C919	1-163-035-00	CERAMIC CHIP	0.047MF	10%	25V
C920	1-163-265-91	CERAMIC CHIP	390PF	5%	50V
C921	1-124-470-11	ELECT	470MF	20%	6.3V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
CF201	1-567-506-11	FILTER, CERAMIC			
CF251	1-567-099-00	FILTER, CERAMIC			
CN601	1-507-563-00	DC JACK (DC IN 6V)			
CNJ301	1-507-972-11	JACK, AV (WITH SWITCH)(AC IN)			
D151	8-719-104-27	DIODE 1S2837			
D152	8-719-104-26	DIODE 1S2837			
D201	8-719-911-19	DIODE 1SS119			
D402	8-719-108-19	DIODE 1SS222			
D451	8-719-911-19	DIODE 1SS119			
D501	8-719-100-27	DIODE RD4.7E-BZ			
D601	8-719-911-19	DIODE 1SS119			
D602	8-719-815-85	DIODE 1S1585			
D603	8-719-981-01	DIODE ERA81-004			
D611	8-719-911-19	DIODE 1SS119			
D803	8-719-911-19	DIODE 1SS119			
D804	8-719-903-28	DIODE ESJA57-04			
D806	8-719-911-19	DIODE 1SS119			
D807	8-719-911-19	DIODE 1SS119			
D851	8-719-901-93	DIODE V19C			
D852	8-719-911-19	DIODE 1SS119			
D853	8-719-911-19	DIODE 1SS119			
D854	8-719-911-19	DIODE 1SS119			
D855	8-719-914-42	DIODE DA204K			
D910	8-719-100-05	DIODE 1S2837			
D911	8-719-100-05	DIODE 1S2837			
F601	1-532-625-00	FUSE, GLASS TUBE			
IC201	8-759-600-13	IC M51364P			
IC251	8-759-600-46	IC M51378L			
IC451	8-759-700-89	IC NJM386D			
IC501	8-759-314-41	IC HA11441			
IC602	8-759-157-40	IC UPC574J			
IC611	8-759-802-39	IC CX20159			
IC910	8-759-701-01	IC NJM2904M			
IC911	8-759-205-81	IC TA7370P			
J901	1-507-969-11	JACK (EARPHONE)			
JR1	1-216-296-00	METAL CHIP	0	5%	1/8W
JR2	1-216-295-00	METAL CHIP	0	5%	1/10W
JR3	1-216-296-00	METAL CHIP	0	5%	1/8W
JR4	1-216-296-00	METAL CHIP	0	5%	1/8W
JR5	1-216-296-00	METAL CHIP	0	5%	1/8W
JR6	1-216-296-00	METAL CHIP	0	5%	1/8W
JR7	1-216-296-00	METAL CHIP	0	5%	1/8W
JR8	1-216-296-00	METAL CHIP	0	5%	1/8W
JR9	1-216-296-00	METAL CHIP	0	5%	1/8W
JR10	1-216-296-00	METAL CHIP	0	5%	1/8W
JR11	1-216-296-00	METAL CHIP	0	5%	1/8W
JR12	1-216-296-00	METAL CHIP	0	5%	1/8W
JR13	1-216-296-00	METAL CHIP	0	5%	1/8W
JR14	1-216-296-00	METAL CHIP	0	5%	1/8W
JR15	1-216-296-00	METAL CHIP	0	5%	1/8W
JR16	1-216-296-00	METAL CHIP	0	5%	1/8W
JR17	1-216-296-00	METAL CHIP	0	5%	1/8W
JR18	1-216-296-00	METAL CHIP	0	5%	1/8W
JR19	1-216-296-00	METAL CHIP	0	5%	1/8W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
JR20	1-216-296-00	METAL CHIP	0	5%	1/8W
JR21	1-216-296-00	METAL CHIP	0	5%	1/8W
JR22	1-216-296-00	METAL CHIP	0	5%	1/8W
JR23	1-216-296-00	METAL CHIP	0	5%	1/8W
JR24	1-216-296-00	METAL CHIP	0	5%	1/8W
JR25	1-216-296-00	METAL CHIP	0	5%	1/8W
JR27	1-216-296-00	METAL CHIP	0	5%	1/8W
JR29	1-216-296-00	METAL CHIP	0	5%	1/8W
JR30	1-216-296-00	METAL CHIP	0	5%	1/8W
JR31	1-216-296-00	METAL CHIP	0	5%	1/8W
JR33	1-216-296-00	METAL CHIP	0	5%	1/8W
JR39	1-216-296-00	METAL CHIP	0	5%	1/8W
JR101	1-216-296-00	METAL CHIP	0	5%	1/8W
JR102	1-216-296-00	METAL CHIP	0	5%	1/8W
JR103	1-216-296-00	METAL CHIP	0	5%	1/8W
JR104	1-216-295-00	METAL CHIP	0	5%	1/10W
JR106	1-216-295-00	METAL CHIP	0	5%	1/10W
JR107	1-216-295-00	METAL CHIP	0	5%	1/10W
JR910	1-216-295-00	METAL CHIP	0	5%	1/10W
L201	1-459-530-11	COIL (WITH CORE)			
L202	1-459-462-00	COIL (WITH CORE)			
L203	1-408-098-00	MICRO INDUCTOR 560UH			
L204	1-404-633-11	COIL, VIF DETECTOR			
L251	1-408-112-11	MICRO INDUCTOR 3.9UH			
L252	1-404-451-00	COIL, SIF			
L801	1-408-121-00	MICRO INDUCTOR 22UH			
L802	1-407-499-00	MICRO INDUCTOR 3.9MMH			
L851	1-407-508-00	MICRO INDUCTOR 22MMH			
Q151	8-729-100-76	TRANSISTOR 2SA812			
Q152	8-729-100-76	TRANSISTOR 2SA812			
Q153	8-729-900-56	TRANSISTOR DTC114YK			
Q154	8-729-900-56	TRANSISTOR DTC114YK			
Q201	8-729-100-67	TRANSISTOR 2SC1623-L7			
Q202	8-729-100-67	TRANSISTOR 2SC1623-L7			
Q251	8-729-100-67	TRANSISTOR 2SC1623-L7			
Q301	8-729-100-76	TRANSISTOR 2SA812			
Q302	8-729-100-67	TRANSISTOR 2SC1623-L7			
Q303	8-729-100-76	TRANSISTOR 2SA812			
Q401	8-729-100-67	TRANSISTOR 2SC1623-L7			
Q402	8-729-271-23	TRANSISTOR 2SC2712			
Q451	8-729-271-23	TRANSISTOR 2SC2712			
Q551	8-729-271-23	TRANSISTOR 2SC2712			
Q552	8-729-101-07	TRANSISTOR 2SB798			
Q602	8-729-106-68	TRANSISTOR 2SD1615A-P			
Q603	8-729-102-78	TRANSISTOR 2SB962			
Q611	8-729-271-23	TRANSISTOR 2SC2712			
Q612	8-729-271-23	TRANSISTOR 2SC2712			
Q613	8-729-100-67	TRANSISTOR 2SC1623-L7			
Q801	8-729-100-67	TRANSISTOR 2SC1623-L7			
Q802	8-729-106-68	TRANSISTOR 2SD1615A-P			
Q803	8-729-103-72	TRANSISTOR 2SD1005			
Q804	8-729-100-67	TRANSISTOR 2SC1623-L7			
Q805	8-729-301-87	TRANSISTOR 2SD1083L			
Q806	8-729-301-87	TRANSISTOR 2SD1083L			
Q851	8-729-103-52	TRANSISTOR 2SC1654			

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
Q852	8-729-271-23	TRANSISTOR 2SC2712			
Q853	8-729-100-67	TRANSISTOR 2SC1623-L7			
Q854	8-729-100-67	TRANSISTOR 2SC1623-L7			
Q855	8-729-100-76	TRANSISTOR 2SA812			
Q856	8-729-204-19	TRANSISTOR 2SC3073-Y			
Q857	8-729-102-78	TRANSISTOR 2SB962			
Q858	8-729-100-67	TRANSISTOR 2SC1623-L7			
Q859	8-729-100-76	TRANSISTOR 2SA812			
Q860	8-729-103-52	TRANSISTOR 2SC1654			
Q910	8-729-100-76	TRANSISTOR 2SA812			
Q911	8-729-100-76	TRANSISTOR 2SA812			
Q912	8-729-271-23	TRANSISTOR 2SC2712			
Q913	8-729-271-23	TRANSISTOR 2SC2712			
Q914	8-729-100-76	TRANSISTOR 2SA812			
R151	1-216-214-00	METAL CHIP	4.7K	5%	1/8W
R152	1-216-214-00	METAL CHIP	4.7K	5%	1/8W
R153	1-216-198-00	METAL CHIP	1K	5%	1/8W
R154	1-216-198-00	METAL CHIP	1K	5%	1/8W
R155	1-216-214-00	METAL CHIP	4.7K	5%	1/8W
R156	1-216-219-00	METAL CHIP	7.5K	5%	1/8W
R158	1-216-093-00	METAL CHIP	68K	5%	1/10W
R201	1-216-031-00	METAL CHIP	180	5%	1/10W
R202	1-216-029-00	METAL CHIP	150	5%	1/10W
R203	1-216-250-00	METAL CHIP	150K	5%	1/8W
R204	1-216-222-00	METAL CHIP	10K	5%	1/8W
R205	1-216-221-00	METAL CHIP	9.1K	5%	1/8W
R206	1-216-178-00	METAL CHIP	150	5%	1/8W
R207	1-216-081-00	METAL CHIP	22K	5%	1/10W
R208	1-216-031-00	METAL CHIP	180	5%	1/10W
R209	1-216-027-00	METAL CHIP	120	5%	1/10W
R210	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R211	1-216-190-00	METAL CHIP	470	5%	1/8W
R212	1-216-171-00	METAL CHIP	75	5%	1/8W
R213	1-216-226-00	METAL CHIP	15K	5%	1/8W
R214	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R215	1-216-093-00	METAL CHIP	68K	5%	1/10W
R252	1-216-044-00	METAL CHIP	620	5%	1/10W
R253	1-216-166-00	METAL CHIP	47	5%	1/8W
R254	1-216-222-00	METAL CHIP	10K	5%	1/8W
R255	1-216-198-00	METAL CHIP	1K	5%	1/8W
R256	1-216-097-00	METAL CHIP	100K	5%	1/10W
R257	1-216-189-00	METAL CHIP	430	5%	1/8W
R258	1-216-033-00	METAL CHIP	220	5%	1/10W
R259	1-216-073-00	METAL CHIP	10K	5%	1/10W
R301	1-216-171-00	METAL CHIP	75	5%	1/8W
R302	1-216-224-00	METAL CHIP	12K	5%	1/8W
R303	1-216-240-00	METAL CHIP	56K	5%	1/8W
R304	1-216-208-00	METAL CHIP	2.7K	5%	1/8W
R305	1-216-194-00	METAL CHIP	680	5%	1/8W
R306	1-216-202-00	METAL CHIP	1.5K	5%	1/8W
R307	1-216-202-00	METAL CHIP	1.5K	5%	1/8W
R308	1-247-807-00	CARBON	100	5%	1/6W
R401	1-216-222-00	METAL CHIP	10K	5%	1/8W
R402	1-216-200-00	METAL CHIP	1.2K	5%	1/8W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R403	1-216-226-00	METAL CHIP	15K	5%	1/8W
R404	1-216-193-00	METAL CHIP	620	5%	1/8W
R405	1-216-270-00	METAL CHIP	1M	5%	1/8W
R406	1-216-200-00	METAL CHIP	1.2K	5%	1/8W
R407	1-216-174-00	METAL CHIP	100	5%	1/8W
R408	1-216-166-00	METAL CHIP	47	5%	1/8W
R409	1-247-807-00	CARBON	100	5%	1/6W
R410	1-247-879-00	CARBON	100K	5%	1/6W
R411	1-247-903-00	CARBON	1M	5%	1/6W
R451	1-216-222-00	METAL CHIP	10K	5%	1/8W
R452	1-216-230-00	METAL CHIP	22K	5%	1/8W
R453	1-247-791-00	CARBON	22	5%	1/6W
R455	1-216-009-00	METAL CHIP	22	5%	1/10W
R456	1-216-085-00	METAL CHIP	33K	5%	1/10W
R501	1-247-805-00	CARBON	82	5%	1/6W
R502	1-216-248-00	METAL CHIP	120K	5%	1/8W
R503	1-216-234-00	METAL CHIP	33K	5%	1/8W
R504	1-216-198-00	METAL CHIP	1K	5%	1/8W
R505	1-216-262-00	METAL CHIP	470K	5%	1/8W
R506	1-216-218-00	METAL CHIP	6.8K	5%	1/8W
R507	1-216-242-00	METAL CHIP	68K	5%	1/8W
R508	1-216-224-00	METAL CHIP	12K	5%	1/8W
R509	1-216-184-00	METAL CHIP	270	5%	1/8W
R510	1-216-226-00	METAL CHIP	15K	5%	1/8W
R511	1-216-158-00	METAL CHIP	22	5%	1/8W
R512	1-216-210-00	METAL CHIP	3.3K	5%	1/8W
R513	1-216-210-00	METAL CHIP	3.3K	5%	1/8W
R514	1-216-222-00	METAL CHIP	10K	5%	1/8W
R515	1-216-215-00	METAL CHIP	5.1K	5%	1/8W
R516	1-216-220-00	METAL CHIP	8.2K	5%	1/8W
R517	1-216-208-00	METAL CHIP	2.7K	5%	1/8W
R552	1-216-235-00	METAL CHIP	36K	5%	1/8W
R553	1-216-218-00	METAL CHIP	6.8K	5%	1/8W
R554	1-216-220-00	METAL CHIP	8.2K	5%	1/8W
R555	1-216-198-00	METAL CHIP	1K	5%	1/8W
R556	1-216-198-00	METAL CHIP	1K	5%	1/8W
R557	1-216-152-00	METAL CHIP	12	5%	1/8W
R558	1-216-226-00	METAL CHIP	15K	5%	1/8W
R601	1-247-190-00	CARBON	6.8	5%	1/2W
R603	1-247-823-00	CARBON	470	5%	1/6W
R604	1-216-218-00	METAL CHIP	6.8K	5%	1/8W
R605	1-216-230-00	METAL CHIP	22K	5%	1/8W
R606	1-216-190-00	METAL CHIP	470	5%	1/8W
R607	1-216-171-00	METAL CHIP	75	5%	1/8W
R608	1-216-230-00	METAL CHIP	22K	5%	1/8W
R609	1-216-222-00	METAL CHIP	10K	5%	1/8W
R610	1-216-206-00	METAL CHIP	2.2K	5%	1/8W
R611	1-216-192-00	METAL CHIP	560	5%	1/8W
R612	1-216-222-00	METAL CHIP	10K	5%	1/8W
R613	1-216-246-00	METAL CHIP	100K	5%	1/8W
R614	1-216-166-00	METAL CHIP	47	5%	1/8W
R615	1-216-222-00	METAL CHIP	10K	5%	1/8W
R616	1-216-254-00	METAL CHIP	220K	5%	1/8W
R617	1-216-246-00	METAL CHIP	100K	5%	1/8W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R620	1-216-216-00	METAL CHIP	5.6K	5%	1/8W
R622	1-216-232-00	METAL CHIP	27K	5%	1/8W
R624	1-216-210-00	METAL CHIP	3.3K	5%	1/8W
R625	1-216-242-00	METAL CHIP	68K	5%	1/8W
R626	1-216-171-00	METAL CHIP	75	5%	1/8W
R627	1-216-246-00	METAL CHIP	100K	5%	1/8W
R628	1-216-222-00	METAL CHIP	10K	5%	1/8W
R630	1-216-202-00	METAL CHIP	1.5K	5%	1/8W
R801	1-216-190-00	METAL CHIP	470	5%	1/8W
R802	1-216-182-00	METAL CHIP	220	5%	1/8W
R805	1-216-208-00	METAL CHIP	2.7K	5%	1/8W
R806	1-216-286-00	METAL CHIP	4.7M	5%	1/8W
R807	1-216-286-00	METAL CHIP	4.7M	5%	1/8W
R808	1-202-727-00	SOLID	4.7M	10%	1/2W
R809	1-216-190-00	METAL CHIP	470	5%	1/8W
R810	1-216-182-00	METAL CHIP	220	5%	1/8W
R811	1-216-158-00	METAL CHIP	22	5%	1/8W
R812	1-216-234-00	METAL CHIP	33K	5%	1/8W
R813	1-216-286-00	METAL CHIP	4.7M	5%	1/8W
R851	1-216-166-00	METAL CHIP	47	5%	1/8W
R852	1-216-230-00	METAL CHIP	22K	5%	1/8W
R853	1-216-248-00	METAL CHIP	120K	5%	1/8W
R854	1-216-218-00	METAL CHIP	6.8K	5%	1/8W
R855	1-216-250-00	METAL CHIP	150K	5%	1/8W
R856	1-216-260-00	METAL CHIP	390K	5%	1/8W
R857	1-216-255-00	METAL CHIP	240K	5%	1/8W
R858	1-216-264-00	METAL CHIP	560K	5%	1/8W
R859	1-216-222-00	METAL CHIP	10K	5%	1/8W
R860	1-216-202-00	METAL CHIP	1.5K	5%	1/8W
R861	1-216-206-00	METAL CHIP	2.2K	5%	1/8W
R862	1-216-232-00	METAL CHIP	27K	5%	1/8W
R863	1-216-240-00	METAL CHIP	56K	5%	1/8W
R864	1-216-244-00	METAL CHIP	82K	5%	1/8W
R865	1-216-202-00	METAL CHIP	1.5K	5%	1/8W
R866	1-216-193-00	METAL CHIP	620	5%	1/8W
R867	1-216-226-00	METAL CHIP	15K	5%	1/8W
R868	1-216-230-00	METAL CHIP	22K	5%	1/8W
R869	1-216-234-00	METAL CHIP	33K	5%	1/8W
R870	1-216-206-00	METAL CHIP	2.2K	5%	1/8W
R871	1-246-425-00	CARBON	10	5%	1/4W
R872	1-246-401-00	CARBON	1	5%	1/4W
R873	1-216-202-00	METAL CHIP	1.5K	5%	1/8W
R874	1-216-214-00	METAL CHIP	4.7K	5%	1/8W
R875	1-216-246-00	METAL CHIP	100K	5%	1/8W
R876	1-216-278-00	METAL CHIP	2.2M	5%	1/8W
R877	1-216-234-00	METAL CHIP	33K	5%	1/8W
R878	1-216-202-00	METAL CHIP	1.5K	5%	1/8W
R879	1-216-202-00	METAL CHIP	1.5K	5%	1/8W
R880	1-216-255-00	METAL CHIP	240K	5%	1/8W
R881	1-216-256-00	METAL CHIP	270K	5%	1/8W
R882	1-247-831-00	CARBON	1K	5%	1/6W
R885	1-216-025-00	METAL CHIP	100	5%	1/10W
R901	1-247-791-00	CARBON	22	5%	1/6W
R910	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R911	1-216-033-00	METAL CHIP	220	5%	1/10W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R912	1-216-079-00	METAL CHIP	18K	5%	1/10W
R913	1-216-103-00	METAL CHIP	180K	5%	1/10W
R914	1-216-081-00	METAL CHIP	22K	5%	1/10W
R915	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R916	1-216-073-00	METAL CHIP	10K	5%	1/10W
R917	1-216-041-00	METAL CHIP	470	5%	1/10W
R918	1-216-075-00	METAL CHIP	12K	5%	1/10W
R919	1-216-085-00	METAL CHIP	33K	5%	1/10W
R920	1-216-073-00	METAL CHIP	10K	5%	1/10W
R921	1-216-085-00	METAL CHIP	33K	5%	1/10W
R922	1-216-093-00	METAL CHIP	68K	5%	1/10W
R923	1-216-073-00	METAL CHIP	10K	5%	1/10W
R924	1-216-097-00	METAL CHIP	100K	5%	1/10W
R925	1-216-073-00	METAL CHIP	10K	5%	1/10W
R926	1-216-017-00	METAL CHIP	47	5%	1/10W
R927	1-216-085-00	METAL CHIP	33K	5%	1/10W
R928	1-216-097-00	METAL CHIP	100K	5%	1/10W
R929	1-216-097-00	METAL CHIP	100K	5%	1/10W
R930	1-216-073-00	METAL CHIP	10K	5%	1/10W
R931	1-216-049-00	METAL CHIP	1K	5%	1/10W
R932	1-247-783-00	CARBON	10	5%	1/6W
RV151	1-230-397-11	RES, VAR, CARBON(WITH SW) 200K (TUNING)			
RV152	1-230-612-11	RES, ADJ, CARBON 200K			
RV153	1-230-612-11	RES, ADJ, CARBON 200K			
RV154	1-230-611-11	RES, ADJ, CARBON 100K			
RV155	1-230-611-11	RES, ADJ, CARBON 100K			
RV201	1-230-510-11	RES, ADJ, CARBON 10K			
RV401	1-226-430-00	RES, ADJ, CARBON 5K			
RV451	1-228-572-00	RES, VAR, CARBON 10K (VOL)			
RV501	1-230-503-11	RES, ADJ, CARBON 10K			
RV502	1-226-430-00	RES, ADJ, CARBON 5K			
RV552	1-228-990-00	RES, ADJ, CARBON 1K			
RV554	1-230-503-11	RES, ADJ, CARBON 10K			
RV601	1-228-993-00	RES, ADJ, CARBON 5K			
RV603	1-230-503-11	RES, ADJ, CARBON 10K			
RV604	1-230-503-11	RES, ADJ, CARBON 10K			
RV801	1-230-241-00	RES, ADJ, CARBON 4.7M			
RV802	1-230-241-00	RES, ADJ, CARBON 4.7M			
RV852	1-226-434-00	RES, ADJ, CARBON 100K			
RV855	1-230-611-11	RES, ADJ, CARBON 100K			
RV910	1-230-510-11	RES, ADJ, CARBON 10K			

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
S151	1-554-222-00	SWITCH, SLIDE (BAND SELECT)
S601	1-554-358-00	SWITCH, PUSH (POWER)
SP901	1-503-408-11	SPEAKER
T601	1-447-984-11	TRANSFORMER, DC-DC CONVERTER
T801	1-439-350-11	TRANSFORMER ASSY, FLYBACK
V901	⚠ 8-736-851-05	CRT 04JM

ACCESSORY & PACKING MATERIAL

Part No.	Description
1-463-712-11	ADAPTOR, AC (AC-40E)
3-323-930-01	STRAP
3-323-931-01	CASE, CARRYING
3-323-942-01	SHEET, PROTECTION
3-323-977-01	CUSHION (LEFT)
3-323-978-01	CUSHION (RIGHT)
3-323-982-01	SHEET, PROTECTION, ADAPTOR
*3-546-434-00	BAG, POLYETHYLEN
3-703-539-01	INSTRUCTION, FTZ
3-703-710-01	STICKER, SONY SYMBOL (12)
3-760-128-61	MANUAL, INSTRUCTION

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